

Service Manual

[TOP](#) [NEXT](#)

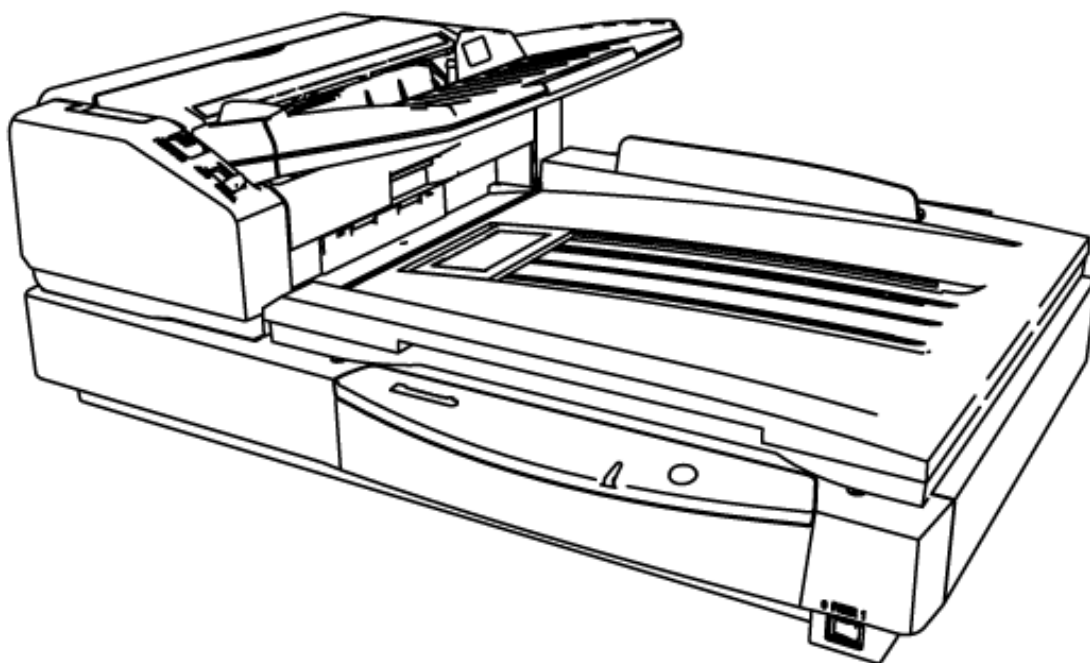
Order Number KM70401905C0

Category Number G14

Service Manual

High Speed Color Scanner

- KV-S7065CSERIES



© 2004 Panasonic Communications Co., Ltd. All rights reserved. Unauthorized copying and distribution is a violation of law.

WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public. It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product. Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic®

[TOP](#) [NEXT](#)

Table Of Contents

[COVER](#)

[1 GENERAL PRECAUTIONS](#)

[1.1 Safety Precautions](#)

[1.2 Electrical Tests](#)

[1.3 For Service Technicians](#)

[1.4 About Lead Free Solder \(PbF: Pb free\)](#)

[1.4.1 Suggested Pb free solder](#)

[2 SPECIFICATIONS](#)

[3 COMPONENT IDENTIFICATION](#)

[4 INSTALLATION](#)

[4.1 Minimum Space Requirements](#)

[4.2 Installing Hopper Tray](#)

[4.3 DIMM Module Extension](#)

[4.4 Installing DIMM Module](#)

[4.5 Setting](#)

[4.5.1 SCSI](#)

[4.6 Connecting the Scanner to a Personal Computer](#)

[4.6.1 SCSI connection](#)

[4.6.2 USB Connection](#)

4.7 System Requirements

5 SECTIONAL VIEWS

5.1 CIS (Contact Image Sensor)

5.2 Rollers

5.3 Drive Belts

5.4 Boards

5.4.1 ADF Block

5.4.2 Flatbed Block and others

6 MECHANICAL FUNCTION

6.1 Paper Feed Mechanism (Auto)

6.2 Paper Feed Mechanism (Manual)

6.3 Paper Feed Roller / Hopper Lift Drive Mechanism

6.4 Hopper Lift Mechanism

6.5 Carriage Drive Mechanism

7 MAINTENANCE

7.1 Maintenance Chart

7.2 Cleaning

7.2.1 Cleaning Rollers-1 (Paper Feed, Separation, and Retard Rollers)

7.2.2 Cleaning Roller-2 (Drive Rollers 1, 2 and Free Rollers)

7.2.3 Cleaning Roller-3 (Drive Rollers 3, 4, Free Rollers, and Exit Roller)

7.2.4 Cleaning Reference Plate and ADF Glass

7.2.5 Cleaning Sensors and Reflector Sheets-1 (Paper and Waiting Sensors, Double Feed Detector)

7.2.6 Cleaning Sensors and Reflector Sheets-2 (Starting, Skew (L), Skew (R), and Ending Sensors)

7.2.7 Cleaning Flatbed Glass

7.3 Replacing Limited Life Parts

7.3.1 Replacing Paper Feed Roller Module

7.3.2 Replacing Retard Roller

8 DISASSEMBLY INSTRUCTIONS

8.1 Disassembly Flowchart

8.1.1 Flatbed Block

8.1.2 ADF Block

8.2 Disassembly for Flatbed Block

8.2.1 Exit Door (Open)

8.2.2 Document Cover

8.2.3 Front Cover

8.2.4 PANEL Board

8.2.5 Back Cover

8.2.6 DOCUMENT COVER DETECTOR Board

8.2.7 Flatbed Conveyor

8.2.8 INTERFACE Board

8.2.9 Side Cover (L)

8.2.10 Side Cover (R)

8.2.11 Flatbed Glass

8.2.12 CARRIAGE HOME DETECTOR Board

8.2.13 Shield Plates (A, B)

8.2.14 CONTROL Board

8.2.15 DRIVE Board

8.2.16 Carriage Motor

8.2.17 Power Box & Cover

8.2.18 FAN

8.2.19 POWER Board

8.2.20 Inverter Cover

8.2.21 CIS (F)

8.2.22 CARRIAGE RELAY Board

8.2.23 Lamp Drive (F) Board

8.3 Disassembly for ADF Block

8.3.1 Imprinter Door

8.3.2 Double Feed Detector (R)

8.3.3 OUTER CONVEYOR RELAY Board

8.3.4 Paper Feed Roller Module

8.3.5 Retard Roller

8.3.6 Top Cover

8.3.7 WAITING SENSOR Board

8.3.8 Hopper Tray

8.3.9 Hopper

8.3.10 SIZE DETECTOR Board

8.3.11 Paper Sensor

8.3.12 ADF Cover (F)

8.3.13 SENSOR RELAY Board

8.3.14 ADF Cover (B)

8.3.15 ADF Door Switch

8.3.16 POWER RELAY Board

8.3.17 Conveyor 1

8.3.18 Drive Belts 1, 2, 3

8.3.19 Drive Rollers 1, 2, 3

8.3.20 Double Feed Detector (G)

8.3.21 STARTING SENSOR Board

8.3.22 ADF Glass (B)

8.3.23 Conveyor 2

8.3.24 Drive Roller 4

8.3.25 Hopper Front Cover

[8.3.26 Hopper Base](#)

[8.3.27 HOPPER HOME DETECTOR Board](#)

[8.3.28 Retard Conveyor](#)

[8.3.29 HOPPER RELAY Board](#)

[8.3.30 Exit Conveyor](#)

[8.3.31 Exit Roller](#)

[8.3.32 ENDING SENSOR Board](#)

[8.3.33 Exit Door Switch](#)

[8.3.34 CIS \(B\) & CIS RELAY Board](#)

[8.3.35 Lamp Drive \(B\) Board](#)

[8.3.36 Paper Feed Motor](#)

[8.3.37 Conveyor Motor](#)

[9 SERVICE UTILITY & SELF TEST](#)

[9.1 Main menu indication for Service Utility](#)

[9.2 Function item list of Service Utility](#)

[9.3 Operation](#)

[9.3.1 Scanner Status](#)

[9.3.2 Error Code](#)

[9.3.3 Scanner information](#)

[9.3.4 Scanner Counter](#)

[9.3.5 Scanner Condition](#)

9.3.6 Test

9.3.7 Adjust

9.3.8 Other (Serial NO., Save Information)

9.4 Scanner Self-test

10 TROUBLESHOOTING

10.1 Troubleshooting-1 (with no error message on PC)

10.2 Troubleshooting-2 (According to error message on PC)

10.2.1 Error Code

10.3 Requirement After Parts Replacement

11 CIRCUIT DESCRIPTION

11.1 Block Diagram-1 (Image Processing)

11.2 Block Diagram-2 (Board)

11.3 Explanation of Connector

12 CIRCUIT BOARDS

12.1 CONTROL Board

12.1.1 Front Side

12.1.2 Back Side

12.2 INTERFACE Board

12.2.1 Front Side

12.2.2 Back Side

12.3 DRIVE Board

12.4 CARRIAGE RELAY Board

12.4.1 Front Side

12.4.2 Back Side

12.5 CIS RELAY Board

12.5.1 Front Side

12.5.2 Back Side

12.6 OUTER CONVEYOR RELAY Board

12.7 WAITING SENSOR Board

12.8 ENDING SENSOR Board

12.9 HOPPER HOME DETECTOR Board

12.10 SIZE DETECTOR Board

12.11 STARTING SENSOR Board

12.12 HOPPER RELAY Board

12.13 SENSOR RELAY Board

12.14 POWER RELAY Board

12.15 PANEL Board

12.16 DOCUMENT COVER DETECTOR Board

12.17 CARRIAGE HOME DETECTOR Board

12.18 POWER Board

13 SCHEMATIC DIAGRAM

13.1 CONTROL Board

13.2 INTERFACE Board

13.3 DRIVE Board

13.4 CARRIAGE RELAY and CIS RELAY Boards

13.5 RELAY, SENSOR, and PANEL Boards

13.6 POWER Board

14 PARTS LOCATION AND MECHANICAL PARTS LIST

14.1 Exterior

14.2 ADF (Outer)

14.3 ADF (Inner)

14.4 Flatbed

14.5 Board Assembly & Power Unit

14.6 Packing

14.7 Tool

15 REPLACEMENT PARTS LIST

15.1 CONTROL Board

15.2 INTERFACE Board

15.3 DRIVE Board

15.4 CARRIAGE RELAY Board

15.5 CIS RELAY Board

[15.6 OUTER CONVEYOR RELAY Board](#)

[15.7 WAITING SENSOR Board](#)

[15.8 ENDING SENSOR Board](#)

[15.9 HOPPER HOME DETECTOR Board](#)

[15.10 SIZE DETECTOR Board](#)

[15.11 STARTING SENSOR Board](#)

[15.12 HOPPER RELAY Board](#)

[15.13 SENSOR RELAY Board](#)

[15.14 POWER RELAY Board](#)

[15.15 PANEL Board](#)

[15.16 DOCUMENT COVER DETECTOR Board](#)

[15.17 CARRIAGE HOME DETECTOR Board](#)

[15.18 POWER Board](#)

1 GENERAL PRECAUTIONS

[TOP](#) [PREVIOUS](#) [NEXT](#)

[1.1 Safety Precautions](#)

[1.2 Electrical Tests](#)

[1.3 For Service Technicians](#)

[1.4 About Lead Free Solder \(PbF: Pb free\)](#)

[1.4.1 Suggested Pb free solder](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1.1 Safety Precautions

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Before servicing, unplug the power cord to prevent electrical shock hazard.
2. When replacing parts, use only manufacturer's recommended components for safety.
3. Check the condition of power cord. Replace if wear or damage is evident.
4. After servicing, be sure to restore the lead dress, insulation barriers, insulation papers, shields, etc.
5. Before returning the serviced equipment to the customer, perform the following electrical tests to prevent shock hazard.

[TOP](#) [PREVIOUS](#) [NEXT](#)

1.2 Electrical Tests

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Unplug the power cord and check for continuity between the earth ground connection on the plug and the metal cabinet. There should be zero ohm resistance found.
2. With the unit unplugged, short the AC Live-Neutral of the plug with a jumper wire.
3. Turn ON the power switch.
4. Measure the resistance value with an ohmmeter between the jumpered AC plug and each exposed metal cabinet part, such as screwheads, etc.

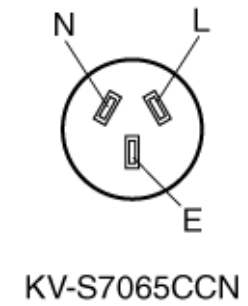
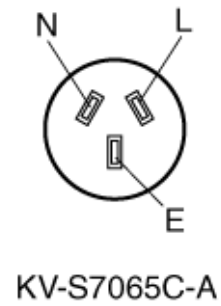
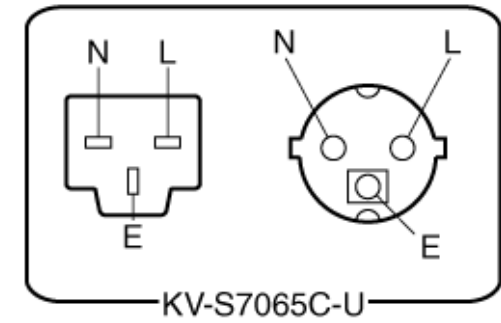
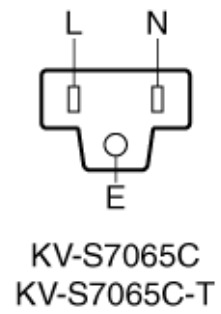
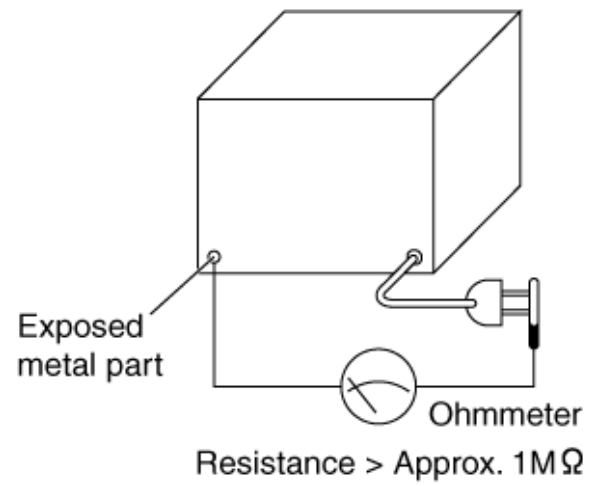
Note

Some exposed parts may be isolated from the chassis by design. They read infinity.

5. If the measurement is less than 1 M Ω , a possibility for electric shock may exit.

Note

This hazardous condition must be corrected before the unit is returned to the end user.



1.3 For Service Technicians

[TOP](#) [PREVIOUS](#) [NEXT](#)

ICs and LSIs are vulnerable to static electricity.

When repairing, the following precautions will help to prevent recurring malfunctions.

1. Cover the plastic parts with aluminum foil.
2. Ground the soldering irons.
3. Use a conductive mat on the worktable.
4. Do not grasp IC or LSI pins with bare fingers.

[TOP](#) [PREVIOUS](#) [NEXT](#)

1.4 About Lead Free Solder (PbF: Pb free)

[TOP](#) [PREVIOUS](#) [NEXT](#)

Note

- In the information below, Pb, the symbol for lead in the periodic table of elements, will refer to standard solder or solder that contains lead.
- We will use PbF when discussing the lead free solder used in our manufacturing process which is made from Tin (Sn), Silver (Ag), and Copper (Cu).
- This model, and others like it, manufactured using lead free solder will have PbF stamped on the PCB. For service and repair work we suggest using the same type of solder although, with some precautions, standard Pb solder can also be used.

Distinction of PbF PCB

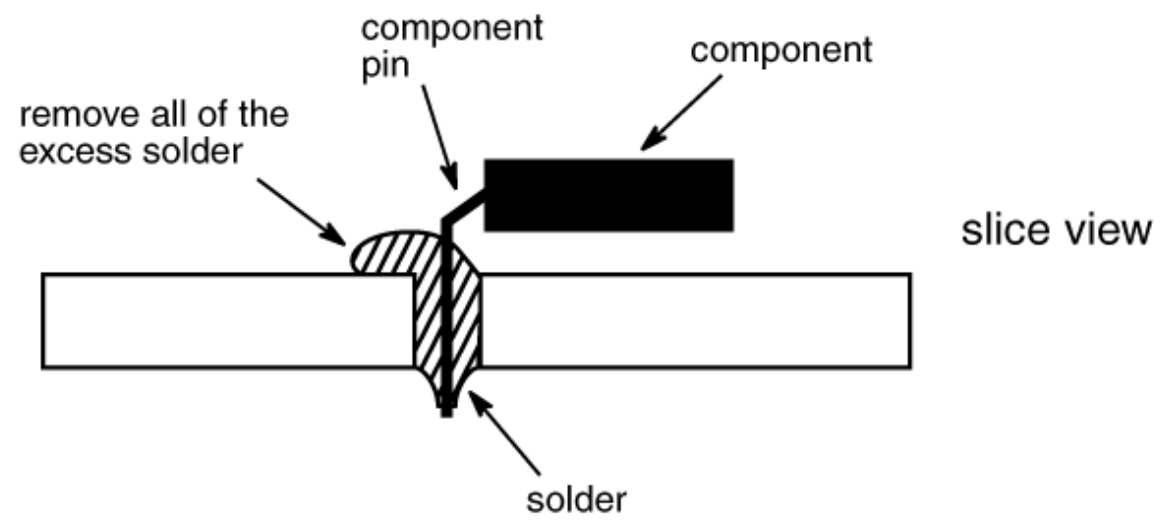
- PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

Caution

- PbF solder has a melting point that is 50 ° - 70 °F, (30 ° - 40 °C) higher than Pb solder.

Please use a soldering iron with temperature control and adjust it to 700 ° ± 20 °F (370 ° ± 10 °C). In case of using high temperature soldering iron, please be careful not to heat too long.

- PbF solder will tend to splash if it is heated much higher than its melting point, approximately 1100 °F, (600 °C).
- If you must use Pb solder on a PCB manufactured using PbF solder, remove as much of the original PbF solder as possible and be sure that any remaining is melted prior to applying the Pb solder.
- When applying PbF solder to double layered boards, please check the component side for excess which may flow onto the opposite side (See figure, below)



[1.4.1 Suggested Pb free solder](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1.4.1 Suggested Pb free solder

[TOP](#) [PREVIOUS](#) [NEXT](#)

We recommend you to use the following solder when you re-solder components for repair. Before using other Pb free solder than the following solder, be sure to confirm a solder maker you appoint has made license agreements to be required when using Pb free solder legally.

Supplier: Senju Metal Industry Co., Ltd. (<http://www.senju-m.co.jp>)

Part Description in Senju: EcoSolder RMA02 P3 M705 Series

[TOP](#) [PREVIOUS](#) [NEXT](#)

2 SPECIFICATIONS

[TOP](#) [PREVIOUS](#) [NEXT](#)

Item			Model No.
			KV-S7065C Series*1
Scanner	Scanning face		Duplex
	Scanning method		CIS (Contact-type color Image Sensor): Front & Back sides and Flatbed Background: Black / White (switchable)
	Readout Speed	Flatbed	0.704 s (Letter, 200 dpi), 0.320 ms/line
		ADF	Black & White: 60 ppm/100 ipm (A4, 200 dpi) Color: 60 ppm/100 ipm (A4, 200 dpi)
	Resolution		Main scanning direction: 100~600 dpi (1 dpi step) Sub-scanning direction: 100~600 dpi (1 dpi step) Optical resolution is 600 dpi.
	Image output		Binary, Grayscale, Color, *4 MultiStream™ (Binary and Color, Binary and Grayscale)
	Tonal gradation		Dither (64 step gradation), Error diffusion (64 step gradation), Grayscale (8 bit), Color (24 bit)
	Image control		Image emphasis, Dynamic threshold, Automatic separation, Multi-Color dropout, Mirror image, Noise reduction
	Other functions		Patch code detection (Kodak patch 2, 3, T), Double feed detection
	Paper	Size For Flatbed	Maximum: ~297×432 mm (11.7 ×17.0)
		For ADF	48×70 mm (1.9 ×2.8) to 297×635 mm (11.7 ×25.0)
		Thickness For ADF	Single paper feeding: 0.05 to 0.15 mm (2.0 to 5.9 mils) Continuous paper feeding: 0.05 to 0.15 mm (2.0 to 5.9 mils) Note: 1 mil=1/1000 in.
		Weight For ADF	Single paper feeding: 40 to 127 g/m2 (10.6 to 34 lb.) Continuous paper feeding: 40 to 127 g/m2 (10.6 to 34 lb.) Business card: Thicker than 127 g/m2 (34lbs.) Note: 1 lb=3.75 g/m2
		Detection	Empty, Size, Jam, and Double-feed detection
	Interface		SCSI III (20 MB/s, 50 pins High-Density) or USB2.0 (connector type: B)
	Hopper capacity		200 sheets [64 g/m2 (17 lb.)] or 150 sheets [75 g/m2 (20 lb.)]
Unit	External dimensions (Width × Depth × Height)		755×508×289 mm (29.7 ×20 ×11.4) Note: When the Document Cover is open, height is 510 mm (20.1).
	Weight		29 kg (64 lbs.)
	Power requirement		AC 100-120 V, 50/60 Hz *2 AC 220-240 V, 50/60 Hz *3
	Power consumption	Maximum (Scanning)	1.5 A *2 0.7 A *3
		Minimum	0.6 A *2

		(Standby)	0.3 A *3
		Sleep mode	8 W *2
			8 W *3
Environment	Operating temperature and Humidity		Temperature: 15 °C to 30 °C (59 °F to 86 °F) Humidity: 30 % to 80 %RH
	Storage temperature and Humidity		Temperature: 0 °C to 35 °C (32 °F to 95 °F) Humidity: 10 % to 80 %RH
Accessories			Installation manual, Maintenance manual, AC cable, USB cable, Blower, Cleaning paper, Shading paper, CD [ISIS Driver, TWAIN Driver, Capture software (RTIV), Operation manual, P.I.E. manual, RTIV manual, Control sheetimages, User Utility, User Utility Manual]
PbF (Pb Free)			Applied to PCB assemblies CONTROL, INTERFACE, PANEL, DRIVE, POWER, SIZE DETECTOR, HOPPER HOME DETECTOR, HOPPER RELAY, DOCUMENT COVER DETECTOR, CARRIAGE HOME DETECTOR, OUTER CONVEYOR RELAY, STARTING SENSOR, WAITINGSENSOR, ENDING SENSOR, CARRIAGE RELAY, SENSOR RELAY, POWER RELAY, and CIS RELAY Boards for KV-S7065C Series. Note: Distinction of PbF PCB PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.
Option			Roller exchange kit (KV-SS015) Roller cleaning paper (KV-SS03) Pre-imprinter (KV-SS014) Ink Cartridge (KV-SS021)

Note:

*1: KV-S7065C Series

- KX-S7065C

: for U.S.A. and Canada

- KX-S7065C-U

: for Europe

- KX-S7065C-A

: for Australia

- KX-S7065C-T

: for Taiwan

SERIAL No. shown on the name plate on each scanner will distinguish the destinations for each area as follows.

1. SERIAL No. for U.S.A. and Canada → 723 xxxx xxxx
2. SERIAL No. for Europe → 732 xxxx xxxx
3. SERIAL No. for Australia → 733 xxxx xxxx
4. SERIAL No. for Taiwan → 734 xxxx xxxx

(x: Don't care)

- KX-S7065CCN

: for China

SERIAL No. for China → 735 xxxx xxxx

(x: Don't care)

*2For KV-S7065C/S7065C-T

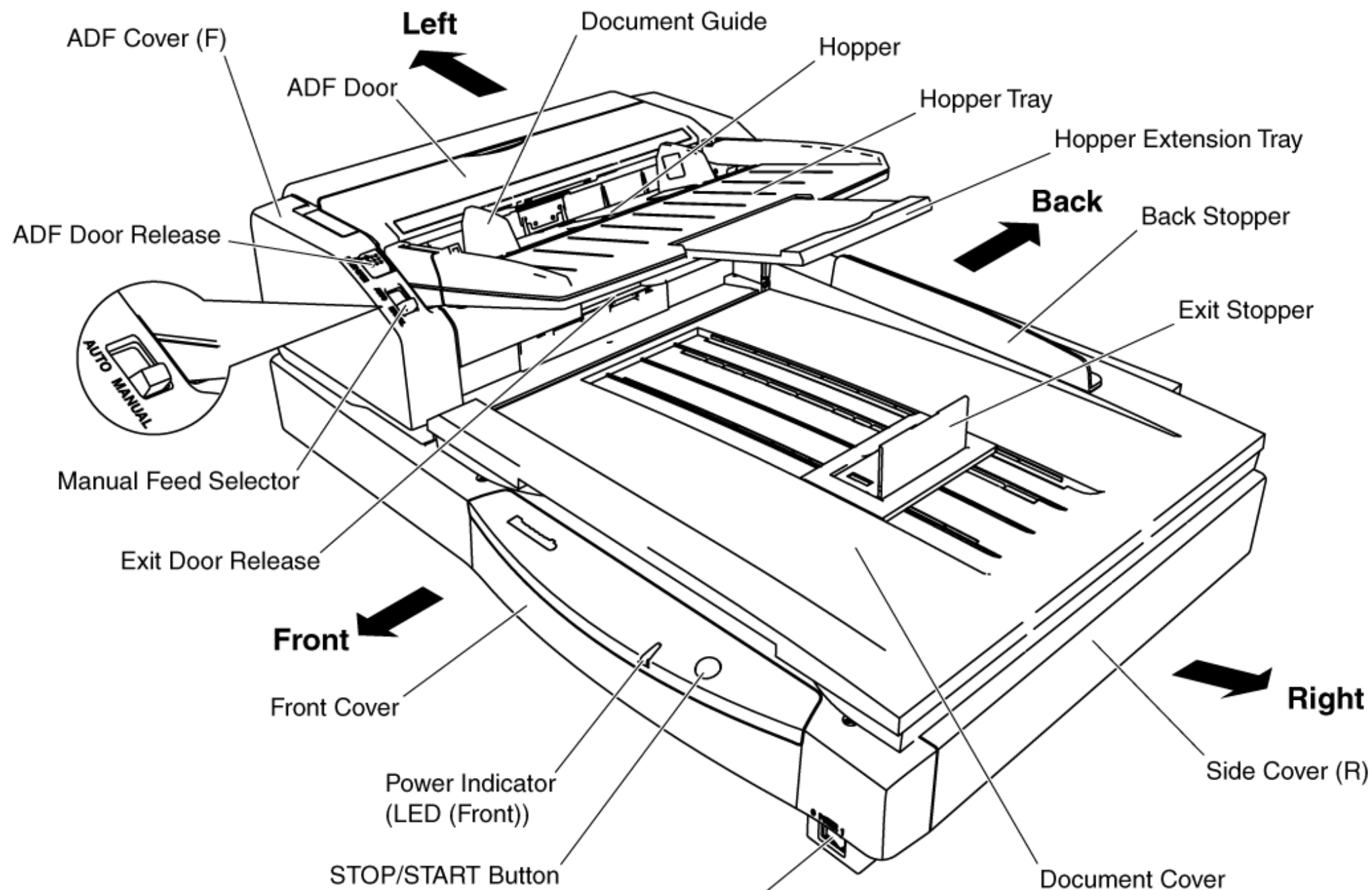
*3For KV-S7065C-U/S7065CCN/S7065C-A

*4MultiStream is TM of Pixel Translations (a division of Action Point Inc.)

[TOP](#) [PREVIOUS](#) [NEXT](#)

3 COMPONENT IDENTIFICATION

[TOP](#) [PREVIOUS](#) [NEXT](#)



Start/Stop Button

Document Cover

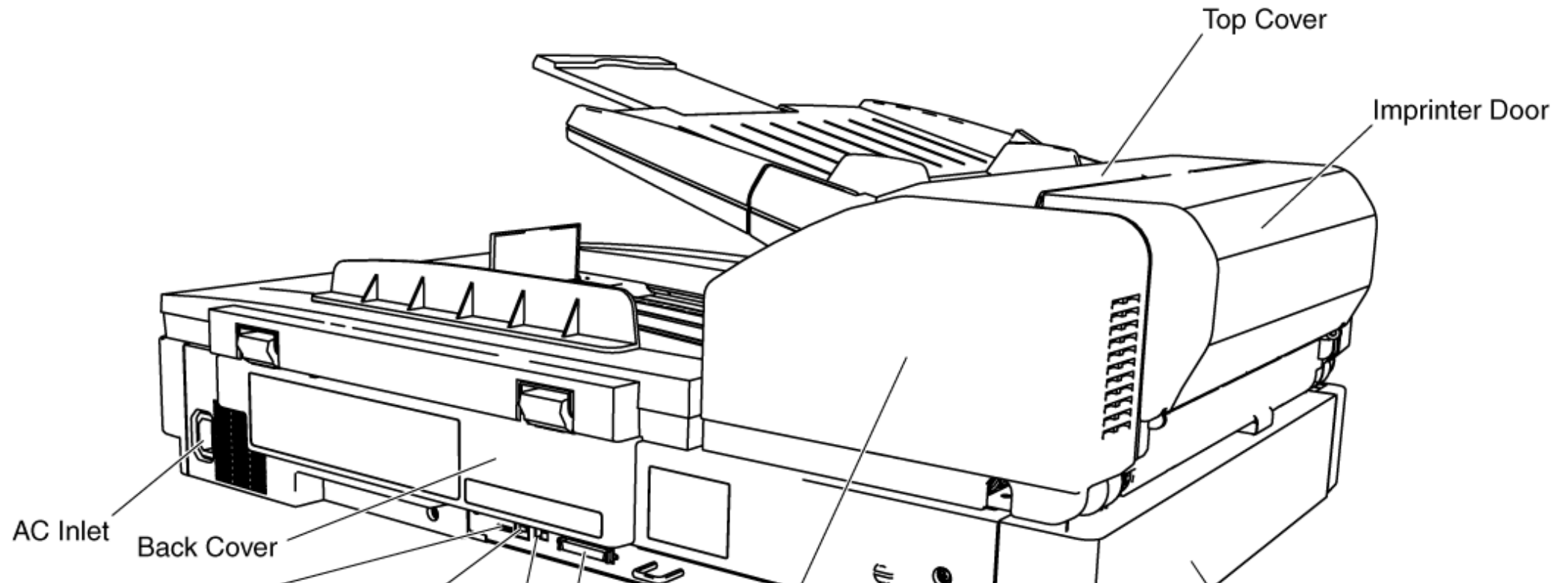
Power Switch

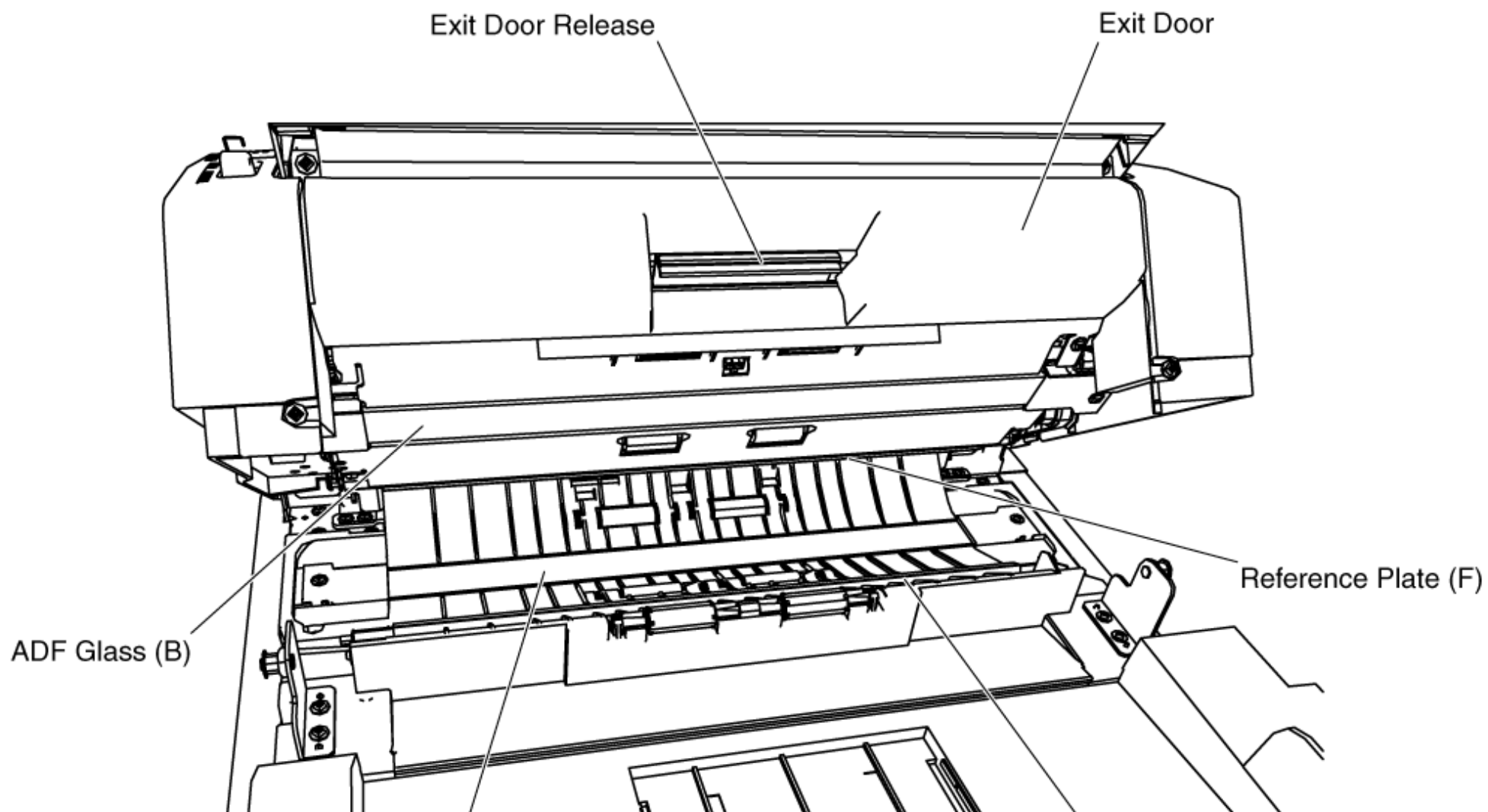
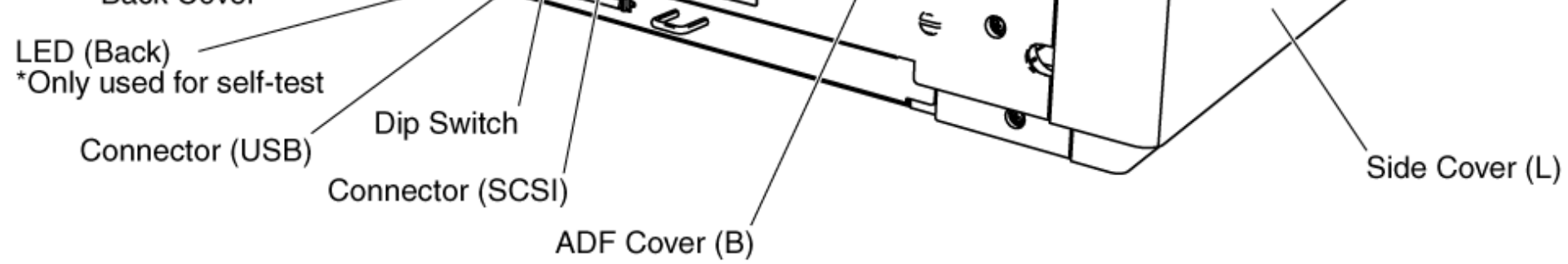
Power Indicator: for showing scanner status

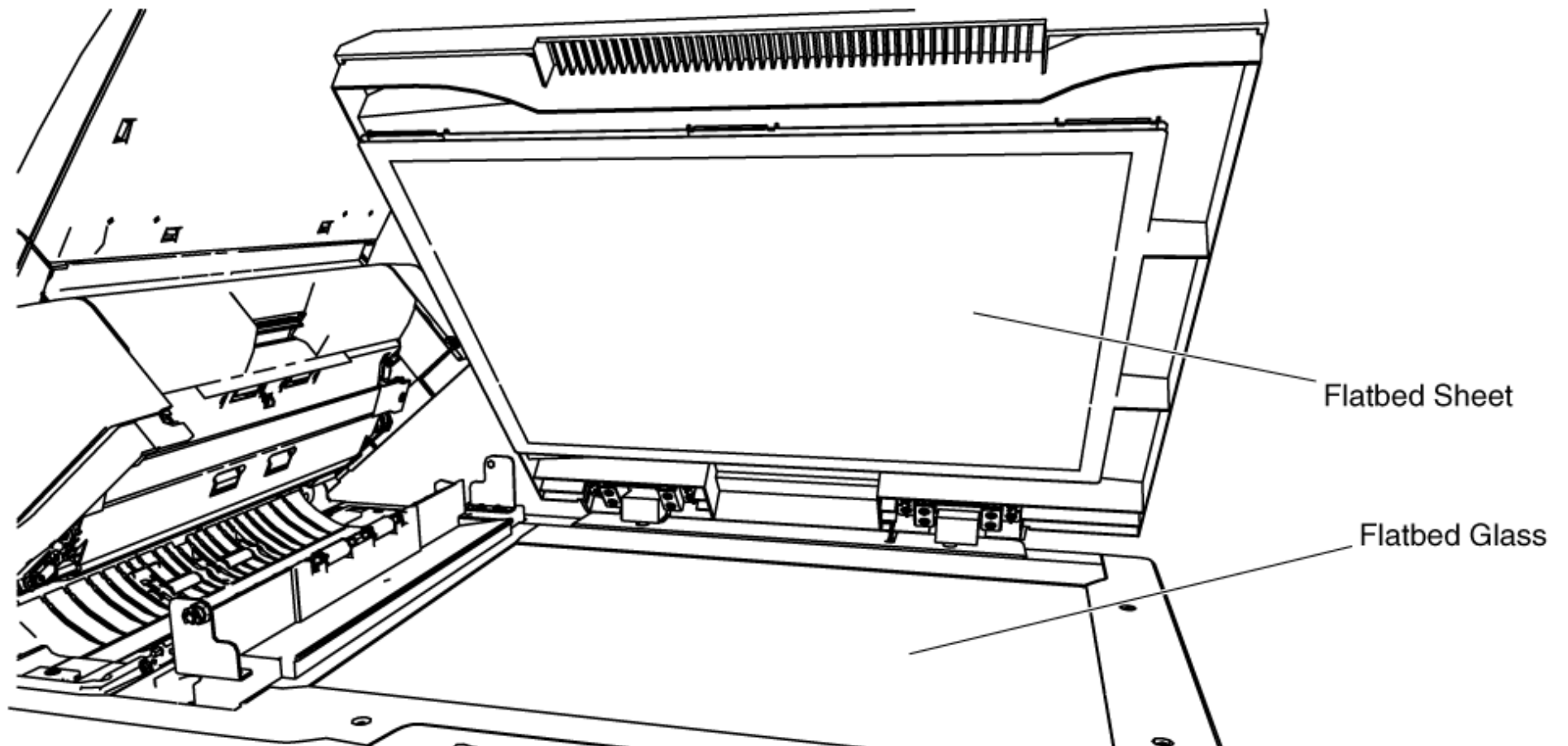
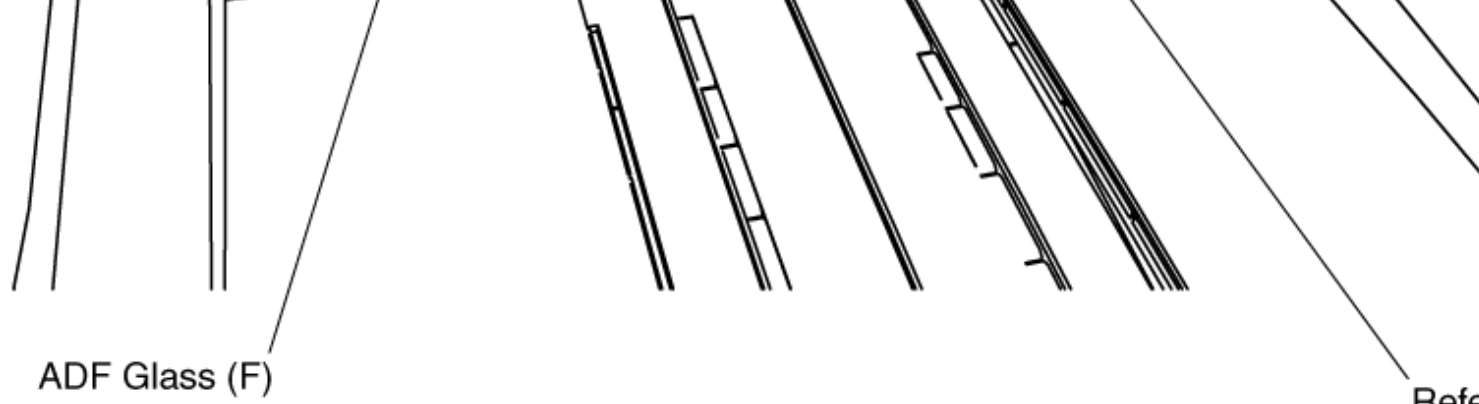
Color	ON	Flashing
Green	1. Ready 2. Scanning	Sleeping
Orange	*1. Ready with warning *2. Scanning with warning	1. Initializing *2. Sleeping with warning 3. Shading
Red	An error	System error

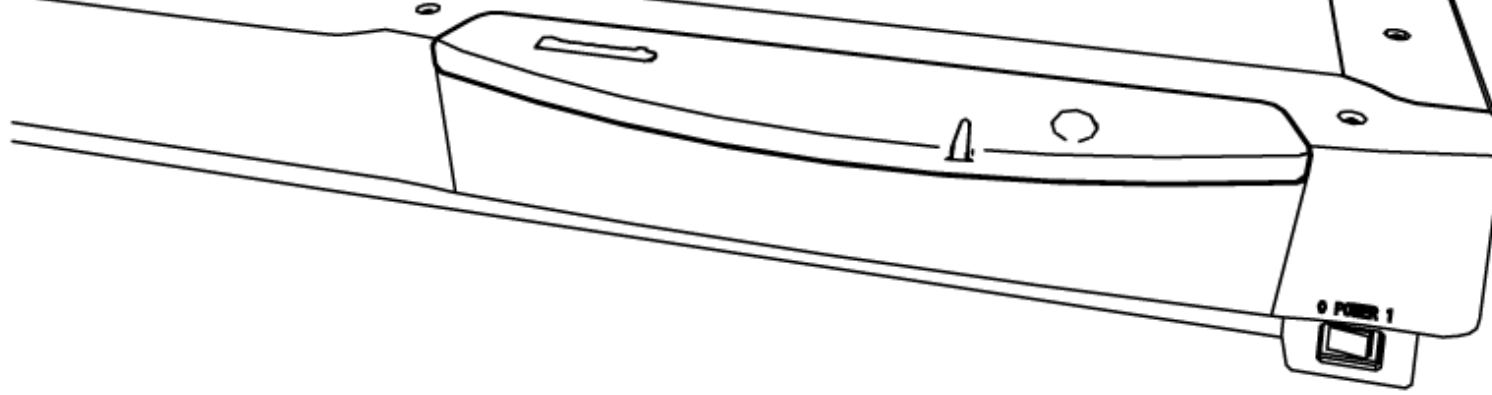
Note:

*Warning error: Clean roller or replace roller









[TOP](#) [PREVIOUS](#) [NEXT](#)

4 INSTALLATION

[TOP](#) [PREVIOUS](#) [NEXT](#)

[4.1 Minimum Space Requirements](#)

[4.2 Installing Hopper Tray](#)

[4.3 DIMM Module Extension](#)

[4.4 Installing DIMM Module](#)

[4.5 Setting](#)

[4.5.1 SCSI](#)

[4.6 Connecting the Scanner to a Personal Computer](#)

[4.6.1 SCSI connection](#)

[4.6.2 USB Connection](#)

[4.7 System Requirements](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

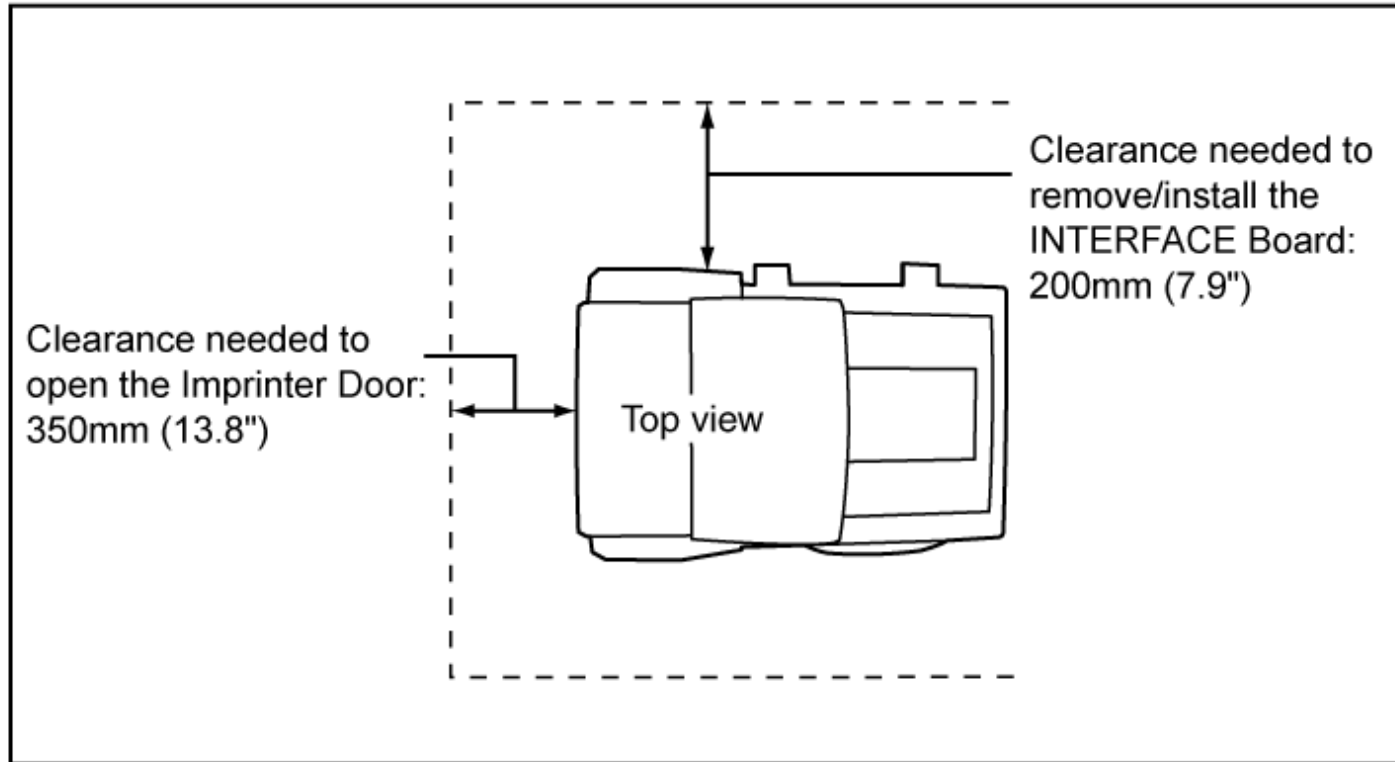
4.1 Minimum Space Requirements

[TOP](#) [PREVIOUS](#) [NEXT](#)

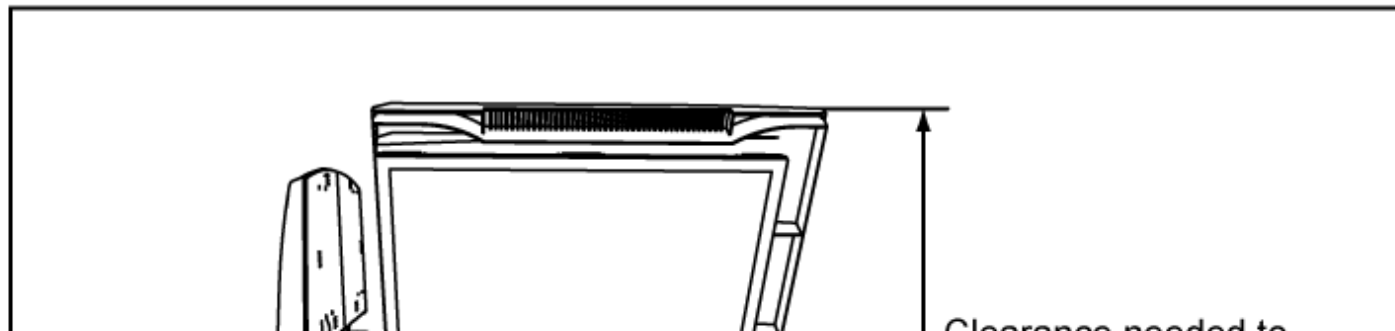
Be sure to maintain the recommended space requirements for proper ventilation.

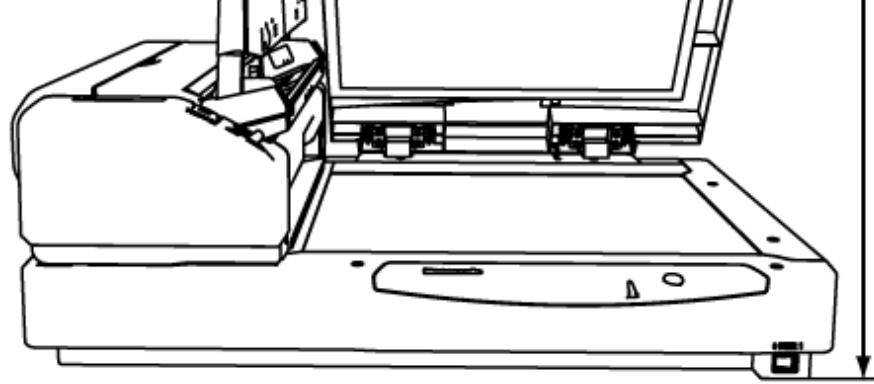
Fig. 4.1.1 Dimensions for proper ventilation

Top View



Front View





Clearance needed to
open the Document Cover:
600mm (23.6")

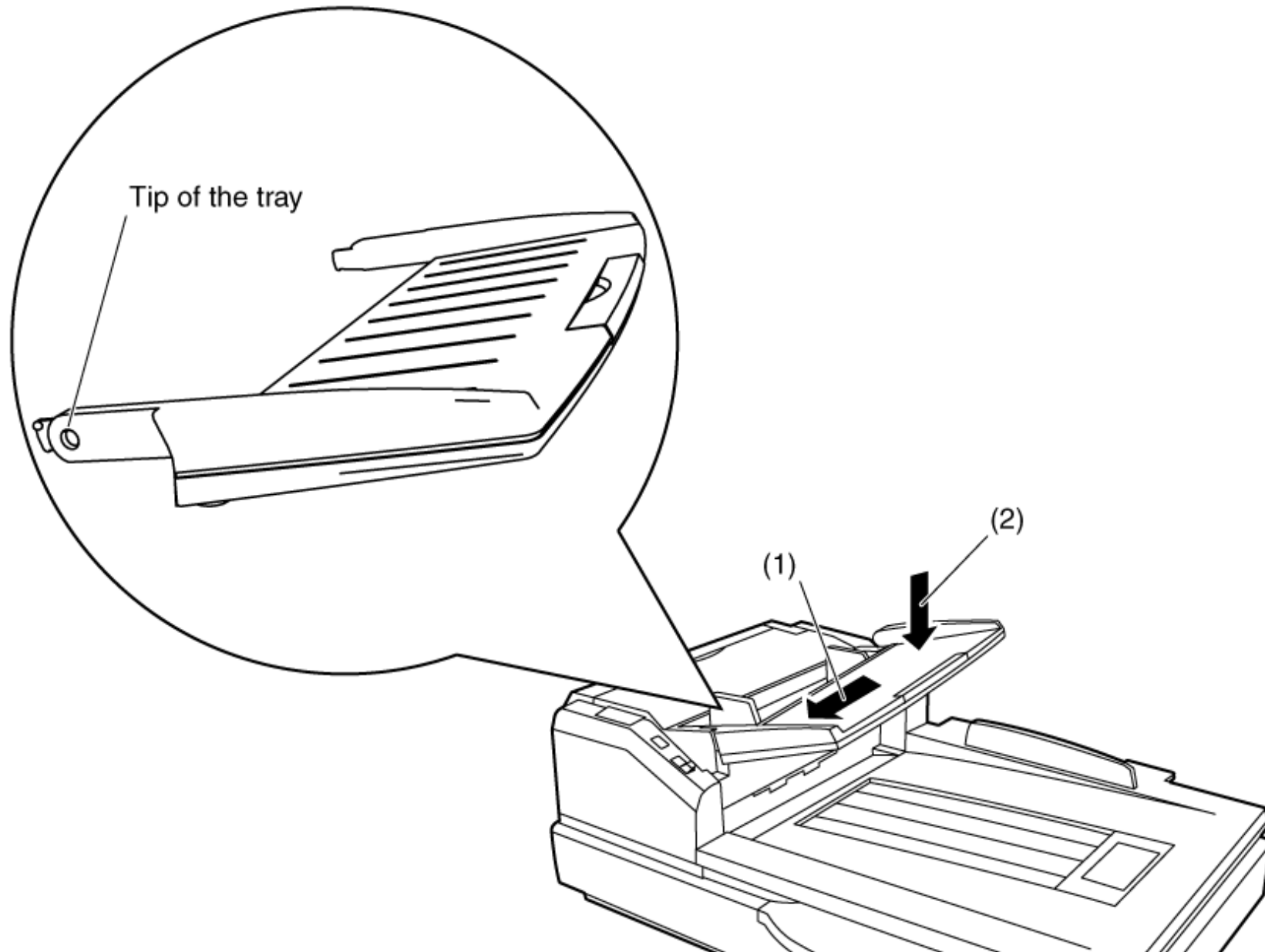
[TOP](#) [PREVIOUS](#) [NEXT](#)

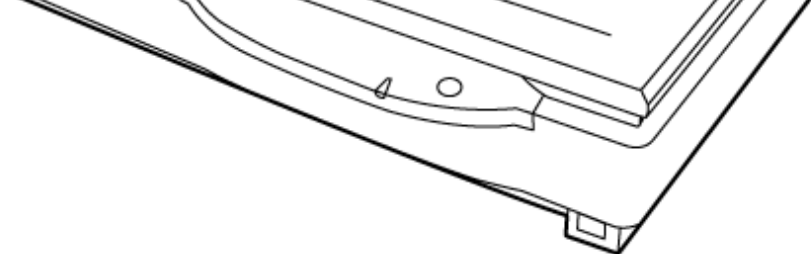
4.2 Installing Hopper Tray

[TOP](#) [PREVIOUS](#) [NEXT](#)

Take out the Hopper tray in the accessory carton box, and hang the tip of the tray to one side at first.

And hang the other side tip of the tray in the direction of the arrow (2), pushing it the direction of the arrow (1) to attach it.





[TOP](#) [PREVIOUS](#) [NEXT](#)

4.3 DIMM Module Extension

[TOP](#) [PREVIOUS](#) [NEXT](#)

A maximum of 512MB extended memory may be required depending on the combination of the paper size, mode, and resolution.

To determine how much extended memory is required on each condition, refer to Fig.4.3.1 and Fig.4.3.2.

Note:

Under any scanning conditions shown in the Fig.4.3.1 and Fig.4.3.2, image scanning with no additional memory will be done by using START/STOP operation except for Compatible Mode on 9.3.5 although scanning speed goes down.

(Recommended DIMM)

- JEDEC-standard 168pin, dual in-line memory module (DIMM)
- Single +3.3 V \pm 0.3 V power supply
- Frequency / CAS Latency: 100 MHz / CL=2, 133 MHz / CL=2, 133 MHz / CL=3
- 64MB, 128MB, 256MB, or 512MB may be used.

Note:

Originally, INTERFACE Board has 64MB memory as the basis.

Fig.4.3.1 Additional memory size-1 (Simplex)

(Unit: MB)

*1 : 297×635 mm (11.7 ×25.0)

Mode	Size	dpi					
		100	200	300	400	500	600
Binary	*1 SC s Max	0	0	0	0	0	0
	Double Letter	0	0	0	0	0	0
	Legal	0	0	0	0	0	0
	Letter	0	0	0	0	0	0

		A3	0	0	0	0	0	0
		A4	0	0	0	0	0	0
		A5	0	0	0	0	0	0
		A6	0	0	0	0	0	0
		B4	0	0	0	0	0	0
		B5	0	0	0	0	0	0
		B6	0	0	0	0	0	0
	8 bit Gray	*1 SC s Max	0	0	0	0	64	64
		Double Letter	0	0	0	0	0	64
		Legal	0	0	0	0	0	0
		Letter	0	0	0	0	0	0
		A3	0	0	0	0	0	64
		A4	0	0	0	0	0	0
		A5	0	0	0	0	0	0
		A6	0	0	0	0	0	0
		B4	0	0	0	0	0	0
		B5	0	0	0	0	0	0
		B6	0	0	0	0	0	0
	24 bit Color	*1 SC s Max	0	0	64	128	256	256
		Double Letter	0	0	0	64	128	256
		Legal	0	0	0	0	64	64
		Letter	0	0	0	0	64	64
		A3	0	0	0	64	128	256
		A4	0	0	0	0	64	64
		A5	0	0	0	0	0	0
		A6	0	0	0	0	0	0
		B4	0	0	0	64	64	128
		B5	0	0	0	0	0	64
		B6	0	0	0	0	0	0

Fig.4.3.2 Additional memory size-2 (Duplex)

(Unit: MB)

*1 : 297×635 mm (11.7 ×25.0)

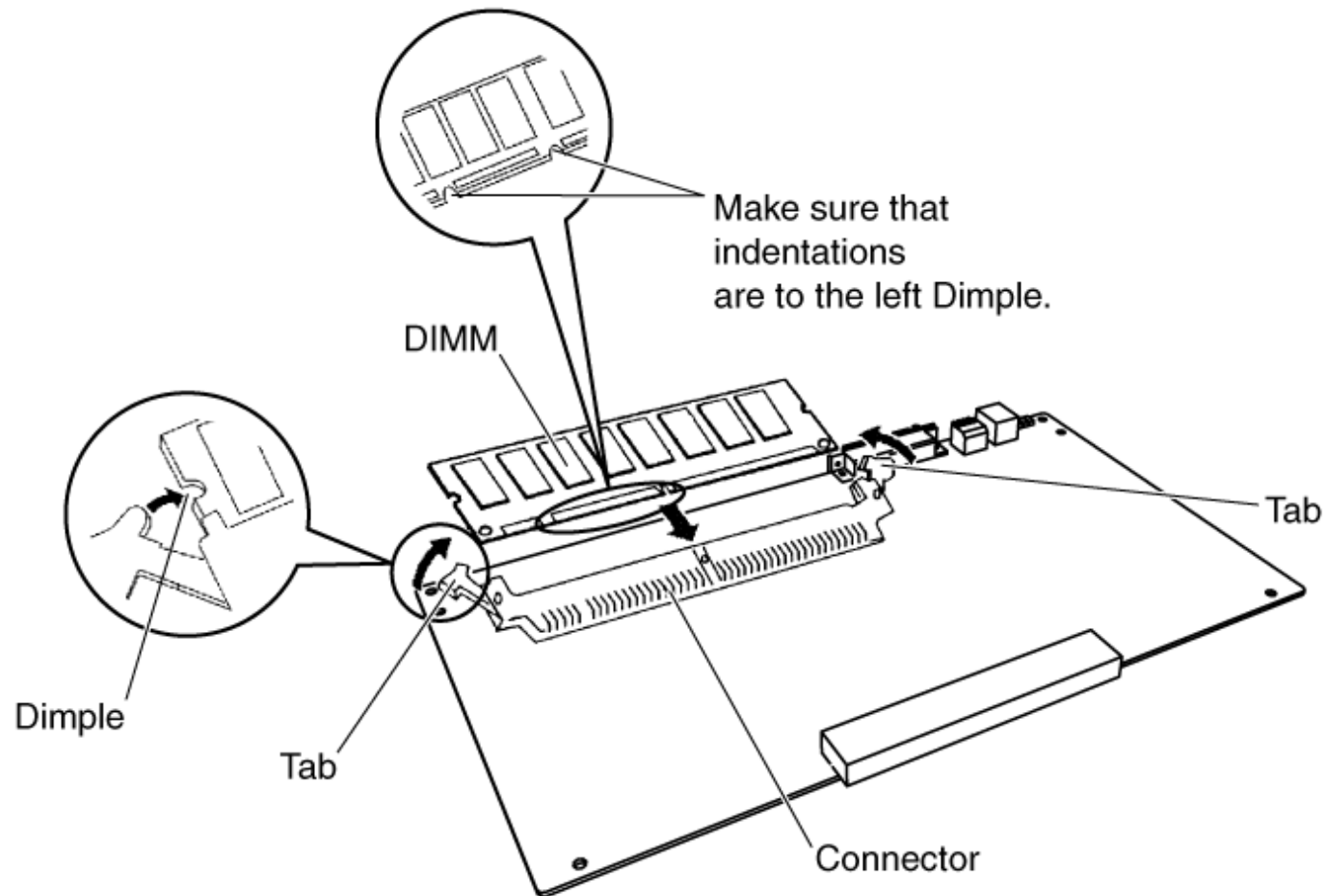
Mode	Size	dpi					
		100	200	300	400	500	600
Binary	*1 SC s Max	0	0	0	0	0	0

	Double Letter	0	0	0	0	0	0
	Legal	0	0	0	0	0	0
	Letter	0	0	0	0	0	0
	A3	0	0	0	0	0	0
	A4	0	0	0	0	0	0
	A5	0	0	0	0	0	0
	A6	0	0	0	0	0	0
	B4	0	0	0	0	0	0
	B5	0	0	0	0	0	0
	B6	0	0	0	0	0	0
8 bit Gray	*1 SC s Max	0	0	0	64	128	256
	Double Letter	0	0	0	0	64	128
	Legal	0	0	0	0	0	64
	Letter	0	0	0	0	0	64
	A3	0	0	0	0	64	128
	A4	0	0	0	0	0	64
	A5	0	0	0	0	0	0
	A6	0	0	0	0	0	0
	B4	0	0	0	0	64	64
	B5	0	0	0	0	0	0
	B6	0	0	0	0	0	0
24 bit Color	*1 SC s Max	0	64	128	256	512	-
	Double Letter	0	0	64	128	256	512
	Legal	0	0	0	64	128	256
	Letter	0	0	0	64	128	256
	A3	0	0	64	128	256	512
	A4	0	0	0	64	128	256
	A5	0	0	0	0	64	64
	A6	0	0	0	0	0	0
	B4	0	0	64	128	256	256
	B5	0	0	0	64	64	128
	B6	0	0	0	0	0	64

4.4 Installing DIMM Module

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove INTERFACE Board. (See 8.2.8.)
2. Insert the DIMM Module into connector (CN2007) on the INTERFACE Board, and raise the tabs at the both ends of the connector until they lock into place.



[TOP](#) [PREVIOUS](#) [NEXT](#)

4.5 Setting

[TOP](#) [PREVIOUS](#) [NEXT](#)

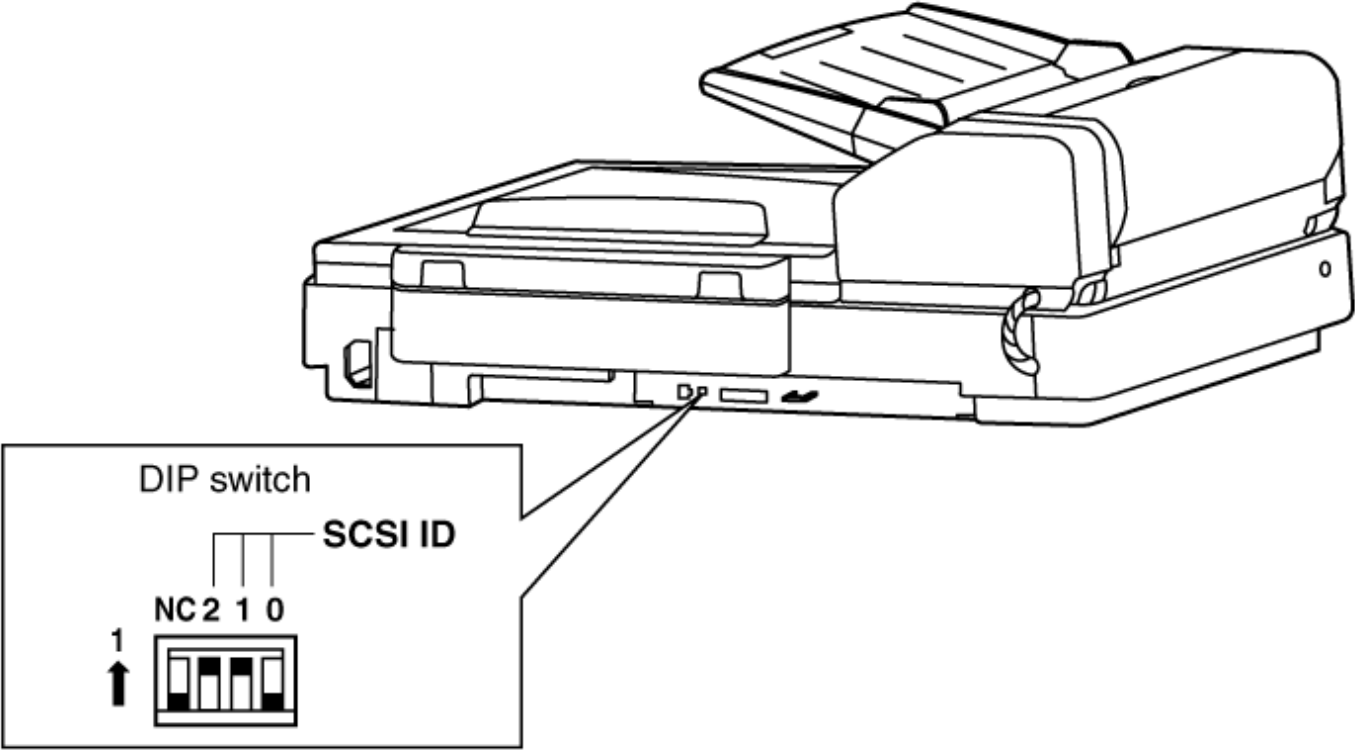
[4.5.1 SCSI](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.5.1 SCSI

[TOP](#) [PREVIOUS](#) [NEXT](#)

When connecting this scanner to PC via SCSI interface, perform the SCSI ID setting as follows.



SCSI ID Setting

ID No.	Switch			Remarks
	#2	#1	#0	
0	0	0	0	
1	0	0	1	
2	0	1	0	
3	0	1	1	
4	1	0	0	
5	1	0	1	
6	1	1	0	Factory Default

7	1	1	1	
---	---	---	---	--

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.6 Connecting the Scanner to a Personal Computer

[TOP](#) [PREVIOUS](#) [NEXT](#)

Connect either USB or SCSI interface cable at a time.

Note:

Windows NT supports only SCSI interface.

[4.6.1 SCSI connection](#)

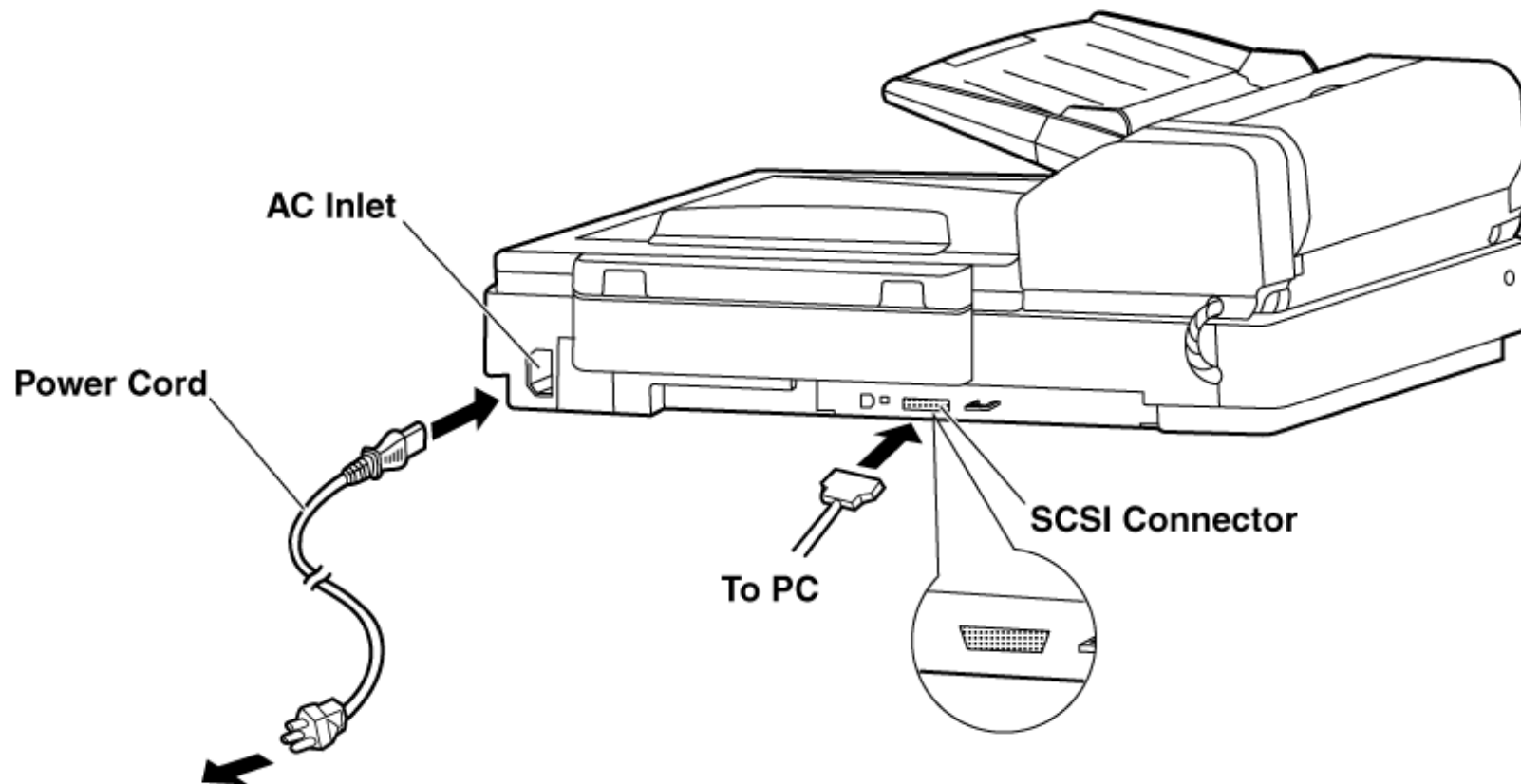
[4.6.2 USB Connection](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.6.1 SCSI connection

[TOP](#) [PREVIOUS](#) [NEXT](#)

Fig.4.6.1



Note:

Power Cord shown on the Fig.4.6.1 is for AC100-120 V.

Caution:

1. Use the Power Cord that is supplied by the scanner manufacturer.
2. Use SCSI cables as short as possible, securing SCSI specification.

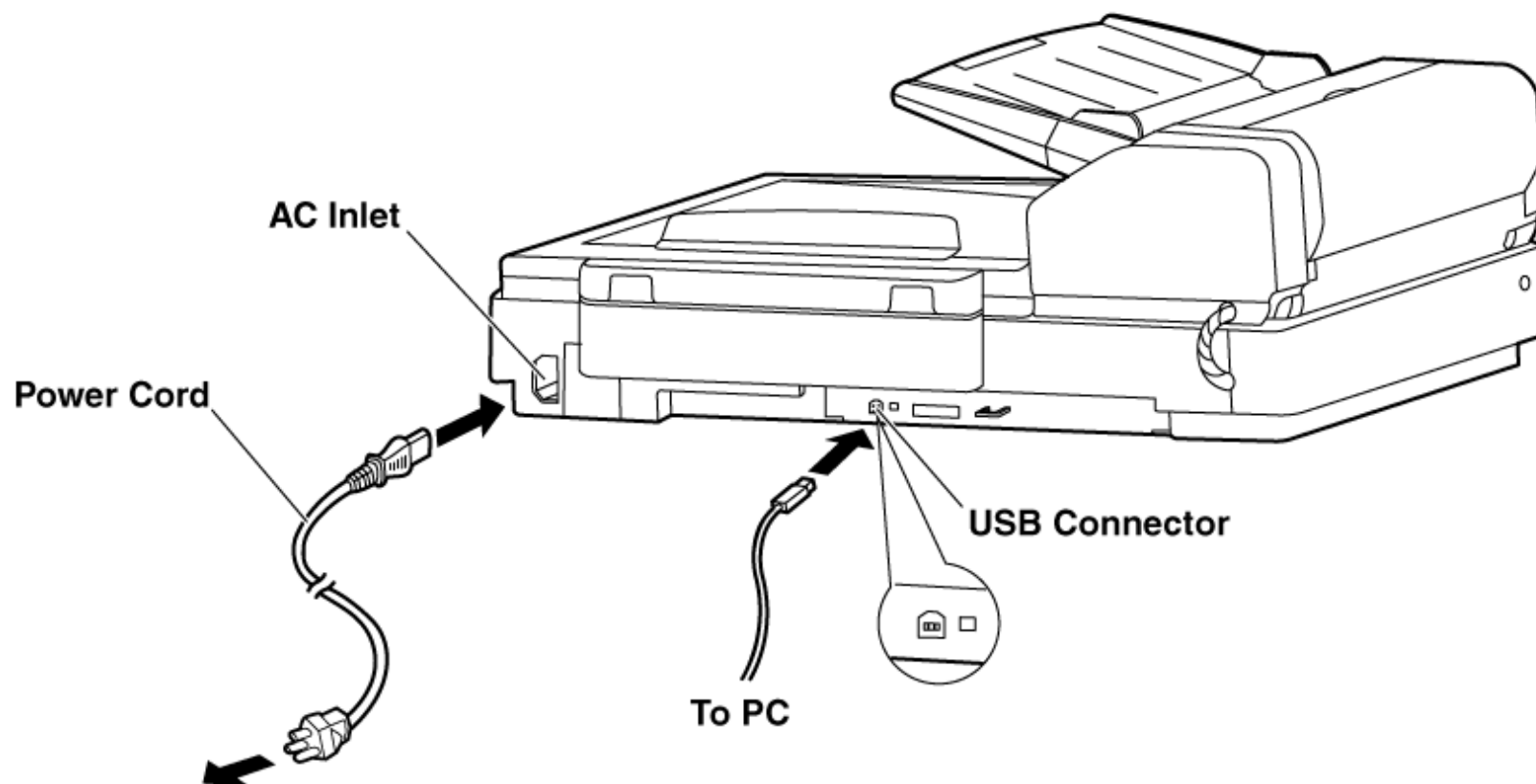
3. After turning off the scanner and PC, remove SCSI cables.

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.6.2 USB Connection

[TOP](#) [PREVIOUS](#) [NEXT](#)

Fig.4.6.2



Note:

Power Cord shown on the Fig.4.6.2 is for AC100 V-120 V.

Caution:

1. Use the Power Cord that is supplied by the scanner manufacturer.
2. Use a USB interface cable that is certified as Hi-Speed logo by USB-IF.

[TOP](#) [PREVIOUS](#) [NEXT](#)

4.7 System Requirements

[TOP](#) [PREVIOUS](#) [NEXT](#)

When using the scanner, the required personal computer conditions are as follows.

		SCSI Connection	USB Connection
CPU		Minimum: Pentium III, 1 GHz Recommended: Pentium 4, 2 GHz or higher	
Memory		Minimum: 256MB Recommended: 512MB or more	
OS		Windows® 98 Windows NT® 4.0 Windows® 2000 Windows® Me Windows® XP	Windows® 98 Windows® 2000 Windows® Me Windows® XP
Display	Resolution	1,024×768 dots or more	
	Colors	65,536 colors or more	
Interface		SCSI III Recommended SCSI Board Adaptec SCSI Board 2930U/2940U/29160N/19160	USB2.0

Note 1:

1. This system requires 1 GB free space of HDD in the personal computer at least.
2. A color scanning beyond the conditions of A3 Size and 600 dpi may not be executed, based on Windows 98 or Windows Me.
And even based on another OS, a high resolution scanning may not be done.
3. The scanning speed differs depending on the personal computer s operating environment or application.
4. Be sure to connect the scanner directly to the USB interface port on PC.
We cannot guarantee that the scanner will work properly if it is connected to a USB hub.
5. A daisy-chain connection to the SCSI interface may not allow the scanner to realize the high speed scanning.

6. When using Windows NT, be sure to install the ASPI layer software that the SCSI Board's vendor provides.

Note 2:

- Windows® 98 is Microsoft® Windows® 98 operating system.
- Windows® Me is Microsoft® Windows® Me operating system.
- Windows NT® is Microsoft® Windows NT® operating system.
- Windows® 2000 is Microsoft® Windows® 2000 operating system.
- Windows® XP is Microsoft® Windows® XP operating system.
- Microsoft® , Windows® and Windows NT® are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries.
- Pentium® is a registered trademark of Intel Corporation.
- Each company's name or company product name is each company's trademark or registered trademark.

[TOP](#) [PREVIOUS](#) [NEXT](#)

5 SECTIONAL VIEWS

[TOP](#) [PREVIOUS](#) [NEXT](#)

[5.1 CIS \(Contact Image Sensor\)](#)

[5.2 Rollers](#)

[5.3 Drive Belts](#)

[5.4 Boards](#)

[5.4.1 ADF Block](#)

[5.4.2 Flatbed Block and others](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

5.1 CIS (Contact Image Sensor)

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

5.2 Rollers

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

5.3 Drive Belts

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

5.4 Boards

[TOP](#) [PREVIOUS](#) [NEXT](#)

[5.4.1 ADF Block](#)

[5.4.2 Flatbed Block and others](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

5.4.1 ADF Block

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

5.4.2 Flatbed Block and others

[TOP](#) [PREVIOUS](#) [NEXT](#)



Note:

*1CARRIAGE HOME DETECTOR Board is not included in the CIS Carriage, but is located under the carriage.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6 MECHANICAL FUNCTION

[TOP](#) [PREVIOUS](#) [NEXT](#)

[6.1 Paper Feed Mechanism \(Auto\)](#)

[6.2 Paper Feed Mechanism \(Manual\)](#)

[6.3 Paper Feed Roller / Hopper Lift Drive Mechanism](#)

[6.4 Hopper Lift Mechanism](#)

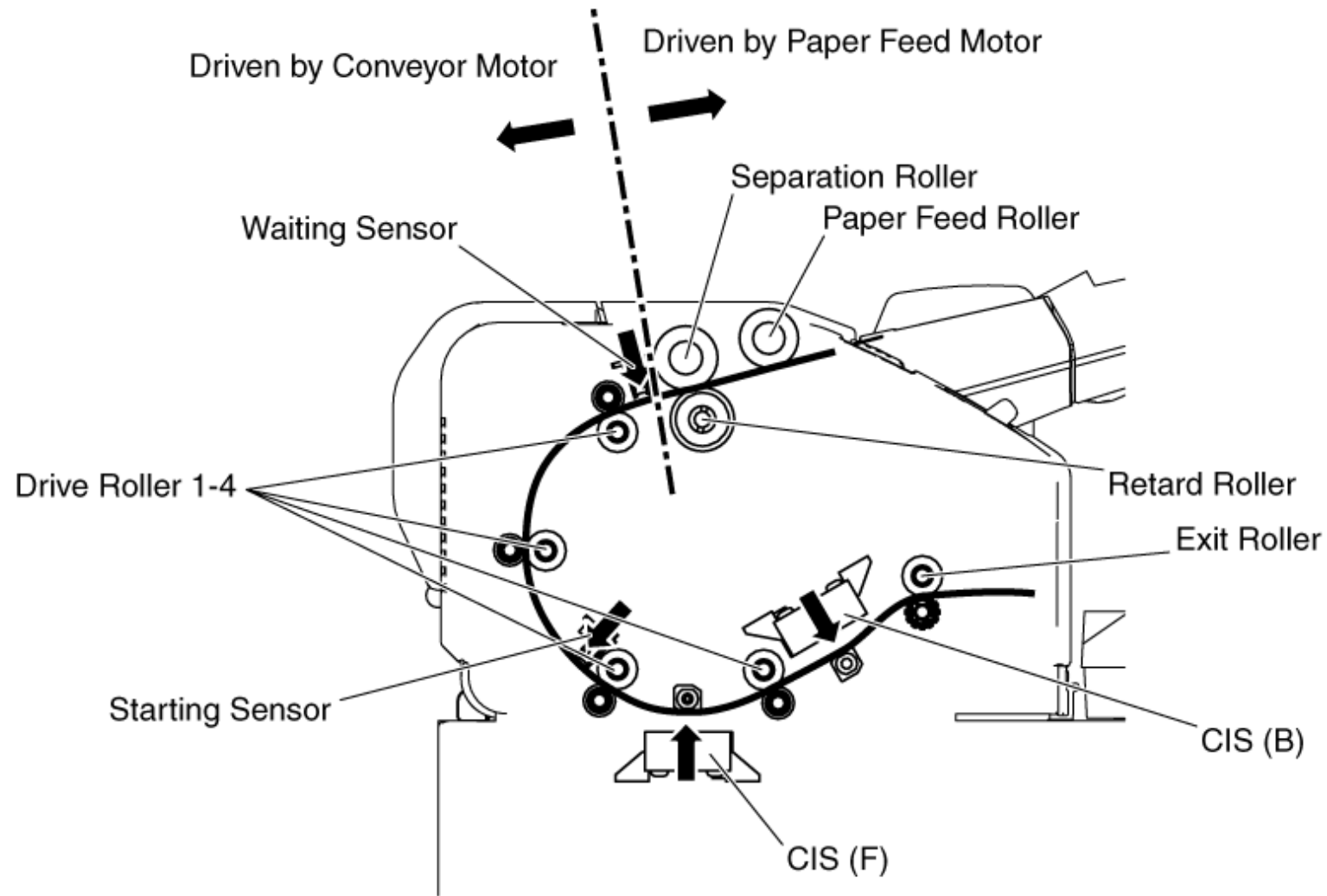
[6.5 Carriage Drive Mechanism](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.1 Paper Feed Mechanism (Auto)

[TOP](#) [PREVIOUS](#) [NEXT](#)

Fig.6.1



1. When the paper is set on the Hopper, and the scanning command is issued from PC, the Hopper rises and the paper will be brought into contact with Paper Feed Roller.
2. The Conveyor Motor is driven to rotate the 4 Drive Rollers and Exit Roller.

3. When the Paper Feed Motor starts, the Paper Feed Roller and the Separation Roller turn in feed direction.

The Retard Roller is supported by shaft fixed via a torque limiter, and it is pushed against the Separation Roller.

When the document enters into the separation section, the Retard Roller exerts a manipulation force onto the document, which depends on the set torque.

In case of continuous paper feed, the document is separated by this manipulation force and is fed to the scanning section.

4. When the leading edge the document advances at about 10 mm from the Drive Roller¹ after passing through the separation section and Waiting Sensor, the Paper Feed Motor stops and the Paper Feed Roller and the Separation Roller turn together.
5. When the leading edge of the document passes through the Starting Sensor, scanning the image starts after the defined period. (Time to be required to convey the document from the Starting Sensor to the scanning start point.)
6. When the trailing edge of the document come to the defined position from the Waiting Sensor, the Paper Feed Motor is driven again to feed the 2nd document.
7. Repeat the above 3 to 6.
8. After finishing all scanning process, Hopper goes down to the original position and the series of scanning sequence ends.

Note:

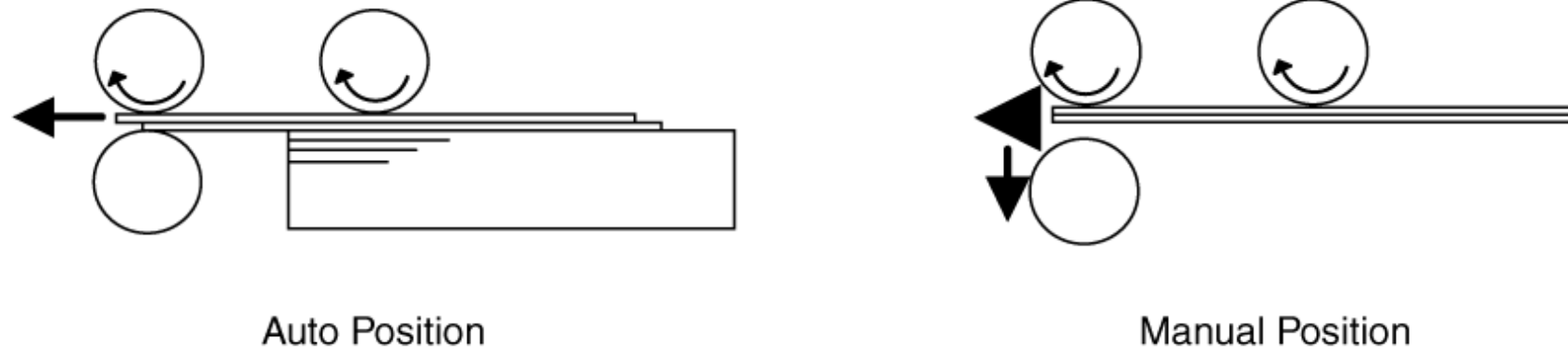
When the scanner's buffer becomes full of data, scanner will stop until securing the buffer free area that allows the scanner to transfer the data to PC in order to prevent the buffer from overflowing.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.2 Paper Feed Mechanism (Manual)

[TOP](#) [PREVIOUS](#) [NEXT](#)

Fig.6.2



For multiple sheets scanning, there is possibility that the first page and second page will be separated, and the paper will be torn if paper is scanned while the Retard Roller is locked.

When Manual Feed Selector is set to Auto , the Retard Roller is pushed against the Separation Roller.

Thereby, the Retard Roller exerts a manipulation force onto the document, and the document is separated by this manipulation force.

When Manual Feed Selector is set to Manual , the Retard Roller is free from the Separation Roller.

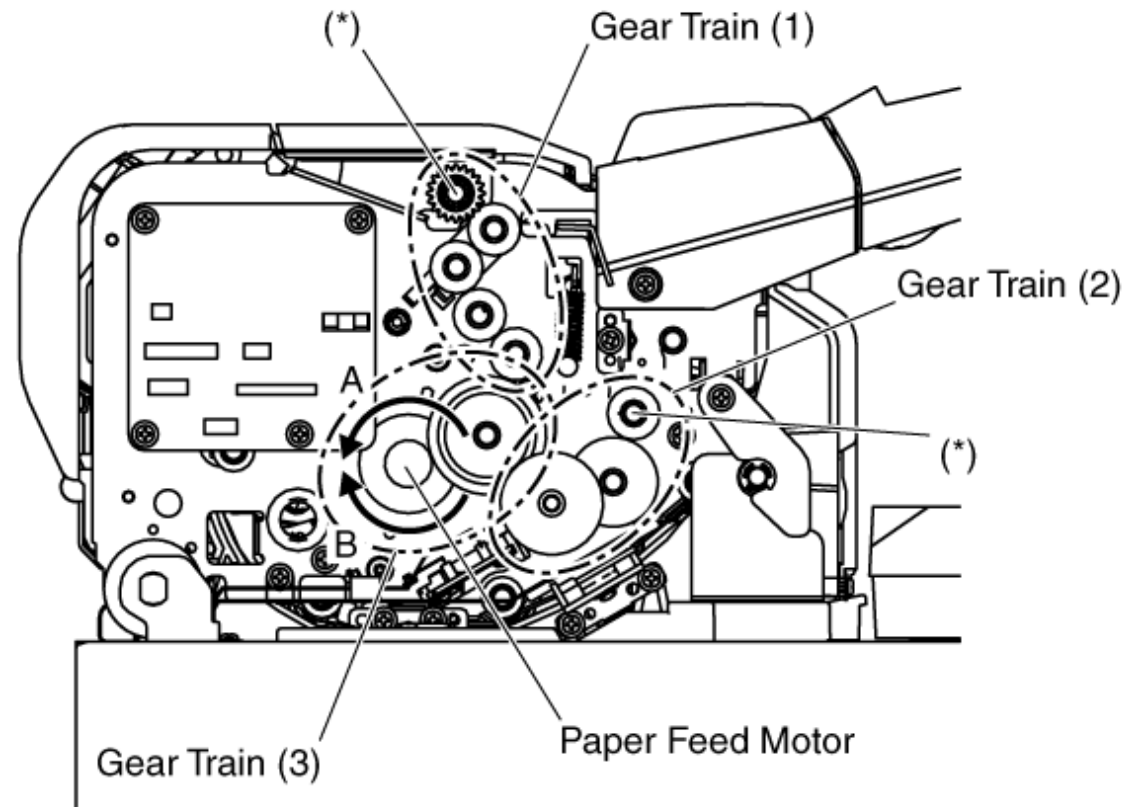
In this case, the Retard Roller does not operate paper separation.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.3 Paper Feed Roller/ Hopper Lift Drive Mechanism

[TOP](#) [PREVIOUS](#) [NEXT](#)

Fig.6.3



Paper Feed Motor drives either Paper Feed Roller mechanism or Hopper lift mechanism by selecting the direction of rotation.

The drive system is shown on Fig.6.3.

(a) The gear train (1) belongs to drive system for Paper Feed Roller and Separation roller.

(b) The gear train (2) belongs to drive system for Hopper Lift.

(c) The gear train (3) belongs to drive system for Paper Feed Roller, Separation Roller and Hopper Lift in common.

When the Paper Feed Motor drives in the direction of arrow A, Paper Feed Roller is activated, based on output axis.

On the other hand, when the Paper Feed Motor drives in the direction of arrow B, Hopper Lift mechanism is activated.

Gears marked with (*) on Each Gear train have one way clutches.

When the gears are activated to rotate against the direction of normal rotation, the one way clutches slipped and the series of rotation are not transmitted to the mechanical block.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.4 Hopper Lift Mechanism

[TOP](#) [PREVIOUS](#) [NEXT](#)

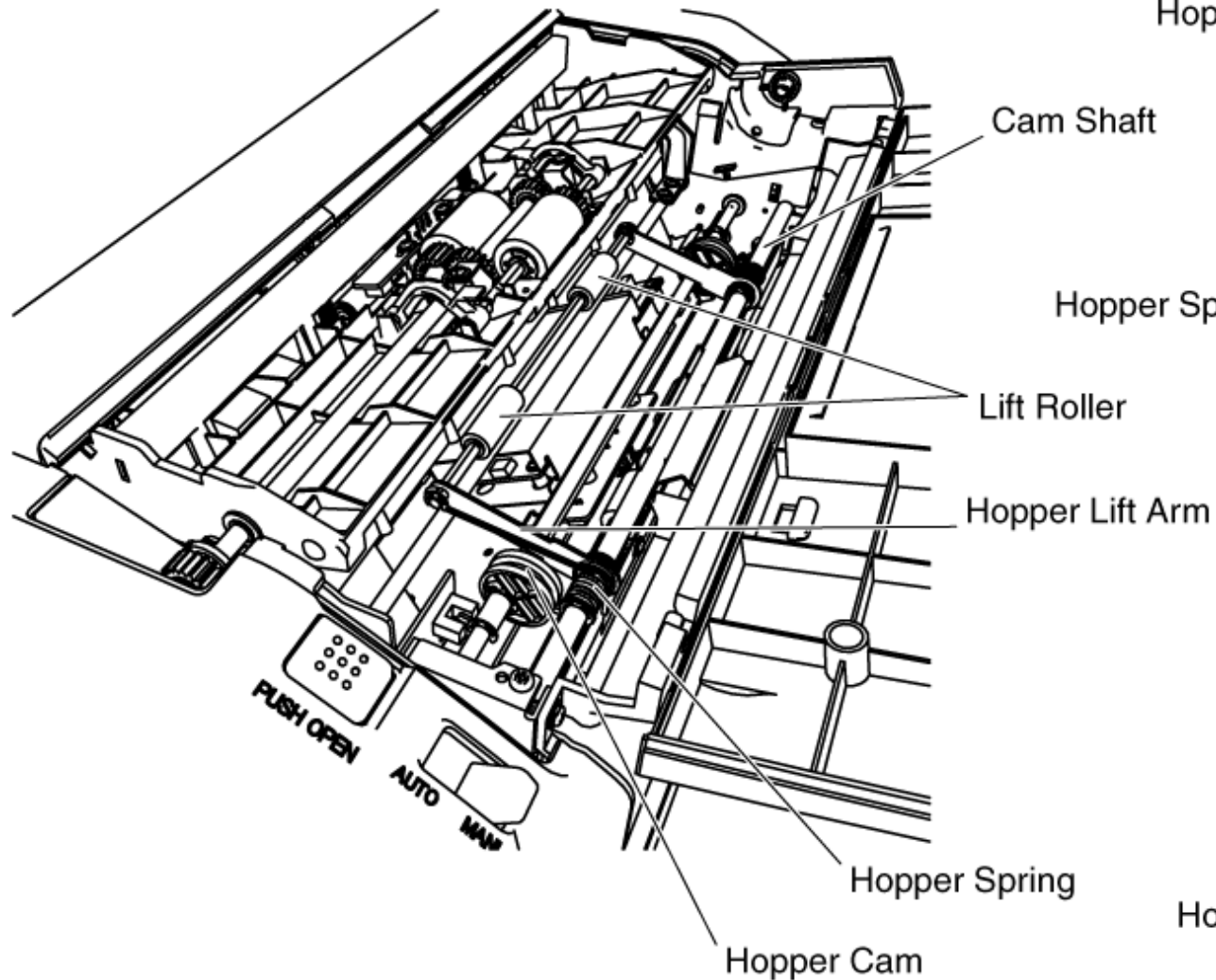


Fig.6.4.1

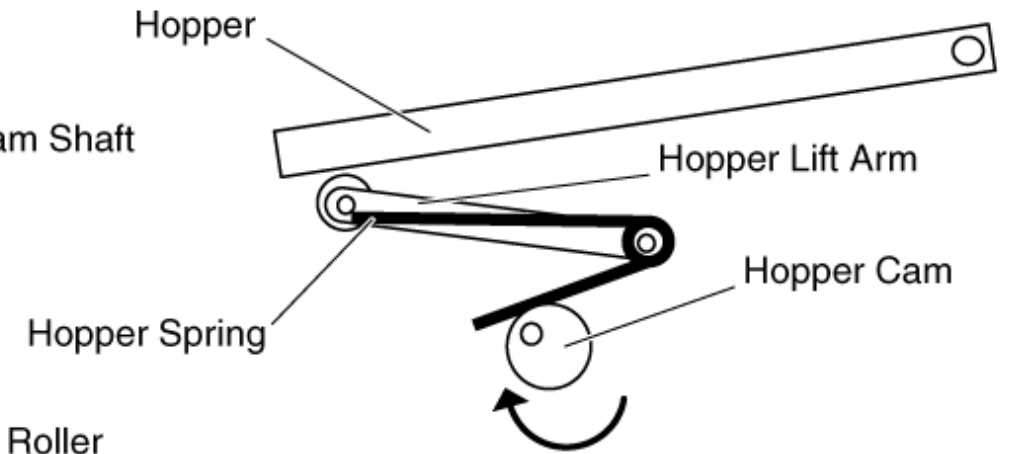


Fig.6.4.2

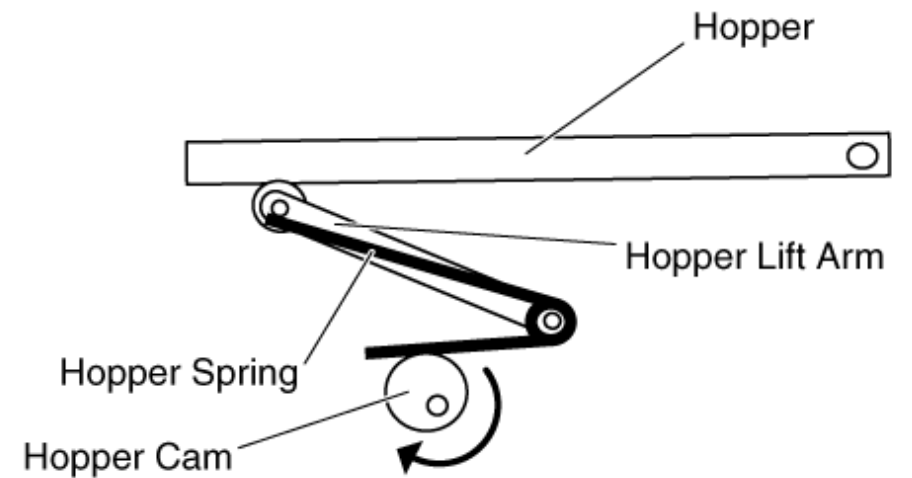


Fig.6.4.3

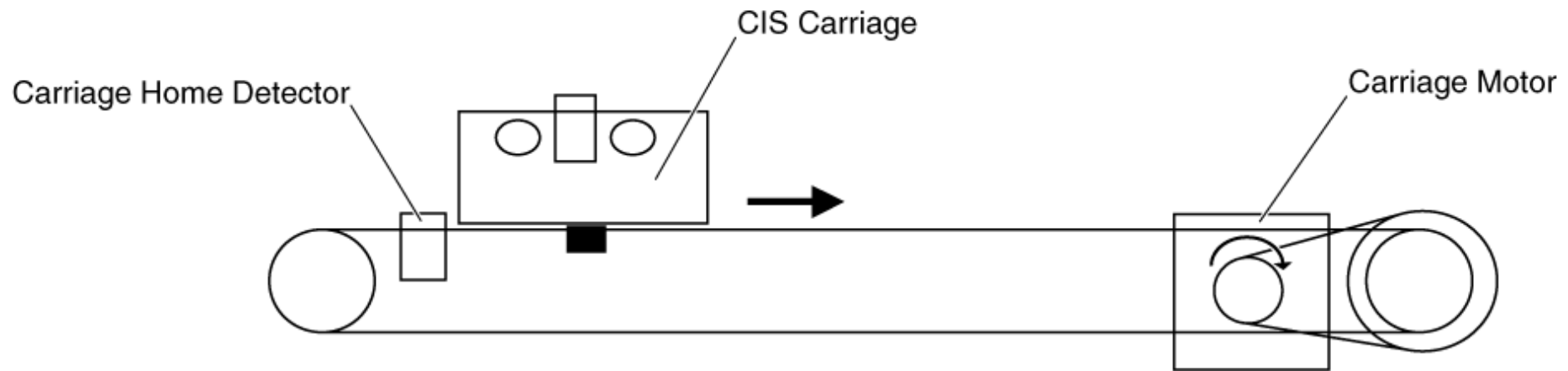
1. Hopper is mounted on Lift Roller of Hopper Lift Arm.
2. Hopper Lift Arm is supported by Hopper Cam through Hopper Spring.

3. Hopper Cam is an eccentric type cam, and is connected to Hopper Lift Gear Train (Gear Train (2)) mentioned in Fig.6.3.
4. When Hopper cam is in condition as shown in Fig.6.4.2, the paper can be set.
5. When the Hopper cam rotates in the direction of arrow as shown in Fig.6.4.3, it pushes up Hopper Spring, and enables paper to be fed by attaching Hopper to Paper Feed Roller.
6. And the Hopper Cam continues to rotate until it goes to the position as shown in Fig.6.4.2 to let the Hopper go down.

[TOP](#) [PREVIOUS](#) [NEXT](#)

6.5 Carriage Drive Mechanism

[TOP](#) [PREVIOUS](#) [NEXT](#)



1. When the paper is set on the Flatbed Glass, and the scanning command is issued from PC, the Carriage Motor rotates to drive the CIS Carriage.
2. After scanning the defined size, the Carriage Motor rotates in reverse, and the CIS Carriage returns to its home position.

[TOP](#) [PREVIOUS](#) [NEXT](#)

7 MAINTENANCE

[TOP](#) [PREVIOUS](#) [NEXT](#)

[7.1 Maintenance Chart](#)

[7.2 Cleaning](#)

[7.2.1 Cleaning Rollers-1 \(Paper Feed, Separation, and Retard Rollers\)](#)

[7.2.2 Cleaning Roller-2 \(Drive Rollers 1, 2 and Free Rollers\)](#)

[7.2.3 Cleaning Roller-3 \(Drive Rollers 3, 4, Free Rollers, and Exit Roller\)](#)

[7.2.4 Cleaning Reference Plate and ADF Glass](#)

[7.2.5 Cleaning Sensors and Reflector Sheets-1 \(Paper and Waiting Sensors, Double Feed Detector\)](#)

[7.2.6 Cleaning Sensors and Reflector Sheets-2 \(Starting, Skew \(L\), Skew \(R\), and Ending Sensors\)](#)

[7.2.7 Cleaning Flatbed Glass](#)

[7.3 Replacing Limited Life Parts](#)

[7.3.1 Replacing Paper Feed Roller Module](#)

[7.3.2 Replacing Retard Roller](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

7.1 Maintenance Chart

[TOP](#) [PREVIOUS](#) [NEXT](#)

C:Clean R:Replace

(x 1000 sheets)

Description		Reference of Part No.	20	40	60	80~260	280	300
Paper Feed Roller		Ref. No.65 in Sec.14.2	C	C	C	Clean each part every 20 (x1000) sheets scanning.	C	R
Separation Roller		Ref. No.66 in Sec.14.2	C	C	C		C	R
Retard Roller		Ref. No.26 in Sec.14.2	C	C	C		C	R
Drive Roller 1		Ref. No.74 in Sec.14.3	C	C	C		C	C
Drive Roller 2		Ref. No.78 in Sec.14.3	C	C	C		C	C
Drive Roller 3		Ref. No.76 in Sec.14.3	C	C	C		C	C
Drive Roller 4		Ref. No.69 in Sec.14.3	C	C	C		C	C
Exit Roller		Ref. No.69 in Sec.14.3	C	C	C		C	C
Free Roller		Ref. No.5 in Sec.14.2, Ref. No.6 in Sec.14.3	C	C	C		C	C
Reference Plate	(F)	Ref. No.17 in Sec.14.3	C	C	C		C	C
	(B)	Ref. No.17 in Sec.14.3	C	C	C		C	C
ADF Glass	(F)	Ref. No.4 in Sec.14.3	C	C	C		C	C
	(B)	Ref. No.4 in Sec.14.3	C	C	C		C	C
Flatbed Glass		Ref. No.47 in Sec.14.4	C	C	C		C	C
Paper Sensor		Ref. No.11 in Sec.14.1	C	C	C		C	C
Waiting Sensor (Board)		Ref. No.71 in Sec.14.2	C	C	C		C	C
Starting Sensor (Board)		Ref. No.49 in Sec.14.3	C	C	C		C	C
Ending Sensor (Board)		Ref. No.52 in Sec.14.3	C	C	C		C	C
Double feed detector (G)		Ref. No.38 in Sec.14.3	C	C	C		C	C
Double feed detector (R)		Ref. No.60 in Sec.14.2	C	C	C		C	C
Reflector Sheets		Ref. No.44 in Sec.14.2, Ref. No.19 in Sec.14.3	C	C	C		C	C

Note 1:

The above roller maintenance values are registered in the maintenance counter (Refer to Section 9), and the PC will inform users the cleaning or replacing timing if the utility software in this scanner has been already installed.

Note 2:

The maintenance schedule was determined according to paper standards (A4 or Letter, 16lb copier paper), which can vary greatly between users.

Therefore, the values can also vary.

[TOP](#) [PREVIOUS](#) [NEXT](#)

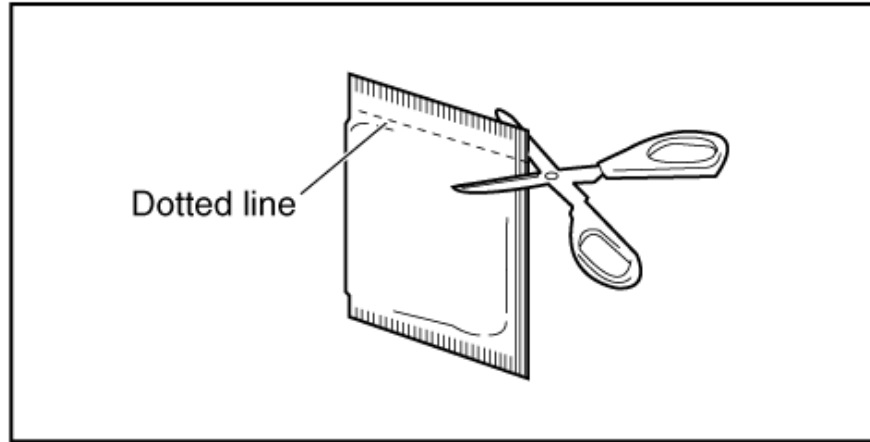
7.2 Cleaning

[TOP](#) [PREVIOUS](#) [NEXT](#)

When cleaning rollers and/or Glass that Sec.7.2.1, 7.2.2, 7.2.3, 7.2.4, and Sec.7.2.7 mention, the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper) is needed.

Note:

1. [Roller Cleaning Paper](#)
 - [Open the bag by the dotted line and take out the Roller Cleaning Paper.](#)



2. [If the opened bag is left open for a long period of time before using it, the alcohol will evaporate.](#)

[Please use the Roller Cleaning Paper immediately after opening the bag.](#)

3. [The Roller Cleaning Paper \(Model No. KV-SS03\) is available via sales route.](#)
4. [When ADF Door \(or Exit Door\) does not open even if ADF Door Release \(or Exit Door Release\) is pushed repeatedly, there is possibility that the door was not closed properly.](#)

[In this case, try to close the ADF Door \(or Exit Door\) until it clicks into place.](#)

[7.2.1 Cleaning Rollers-1 \(Paper Feed, Separation, and Retard Rollers\)](#)

[7.2.2 Cleaning Roller-2 \(Drive Rollers 1, 2 and Free Rollers\)](#)

[7.2.3 Cleaning Roller-3 \(Drive Rollers 3, 4, Free Rollers, and Exit Roller\)](#)

[7.2.4 Cleaning Reference Plate and ADF Glass](#)

[7.2.5 Cleaning Sensors and Reflector Sheets-1 \(Paper and Waiting Sensors, Double Feed Detector\)](#)

[7.2.6 Cleaning Sensors and Reflector Sheets-2 \(Starting, Skew \(L\), Skew \(R\), and Ending Sensors\)](#)

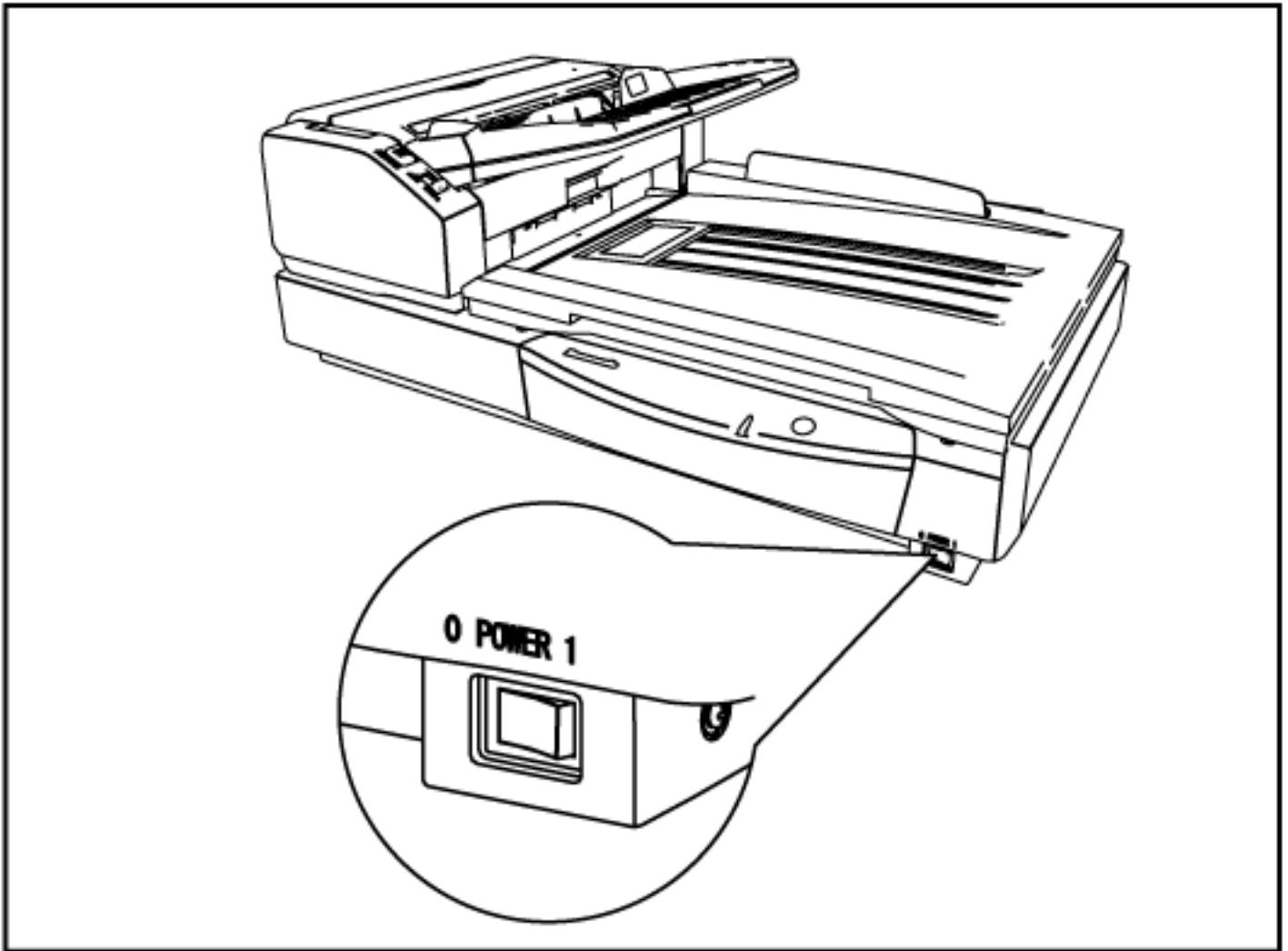
[7.2.7 Cleaning Flatbed Glass](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

7.2.1 Cleaning Rollers-1 (Paper Feed, Separation, and Retard Rollers)

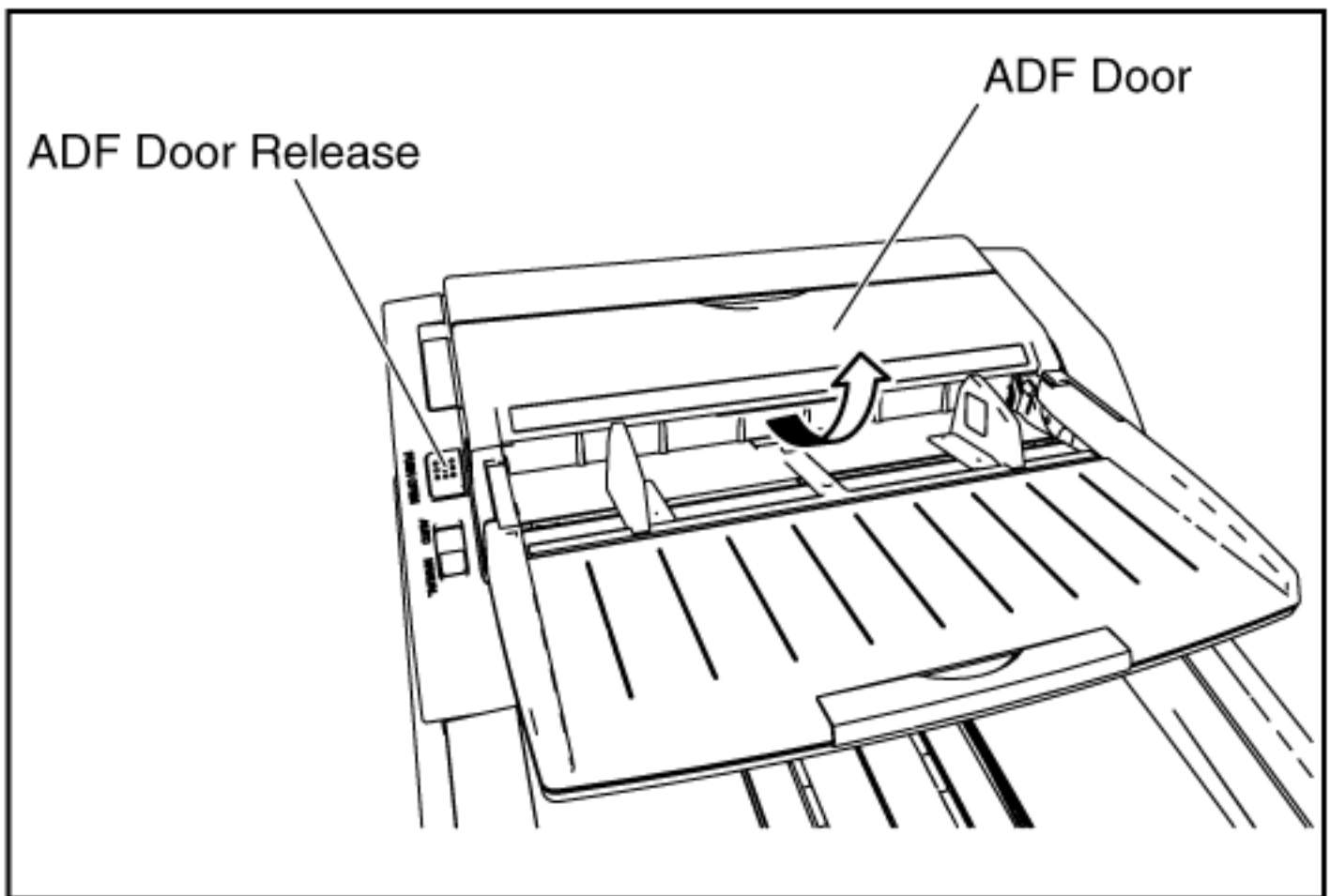
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Turn off the scanner.



1. Push the ADF Door Release to open the ADF Door.

(Right Side View)

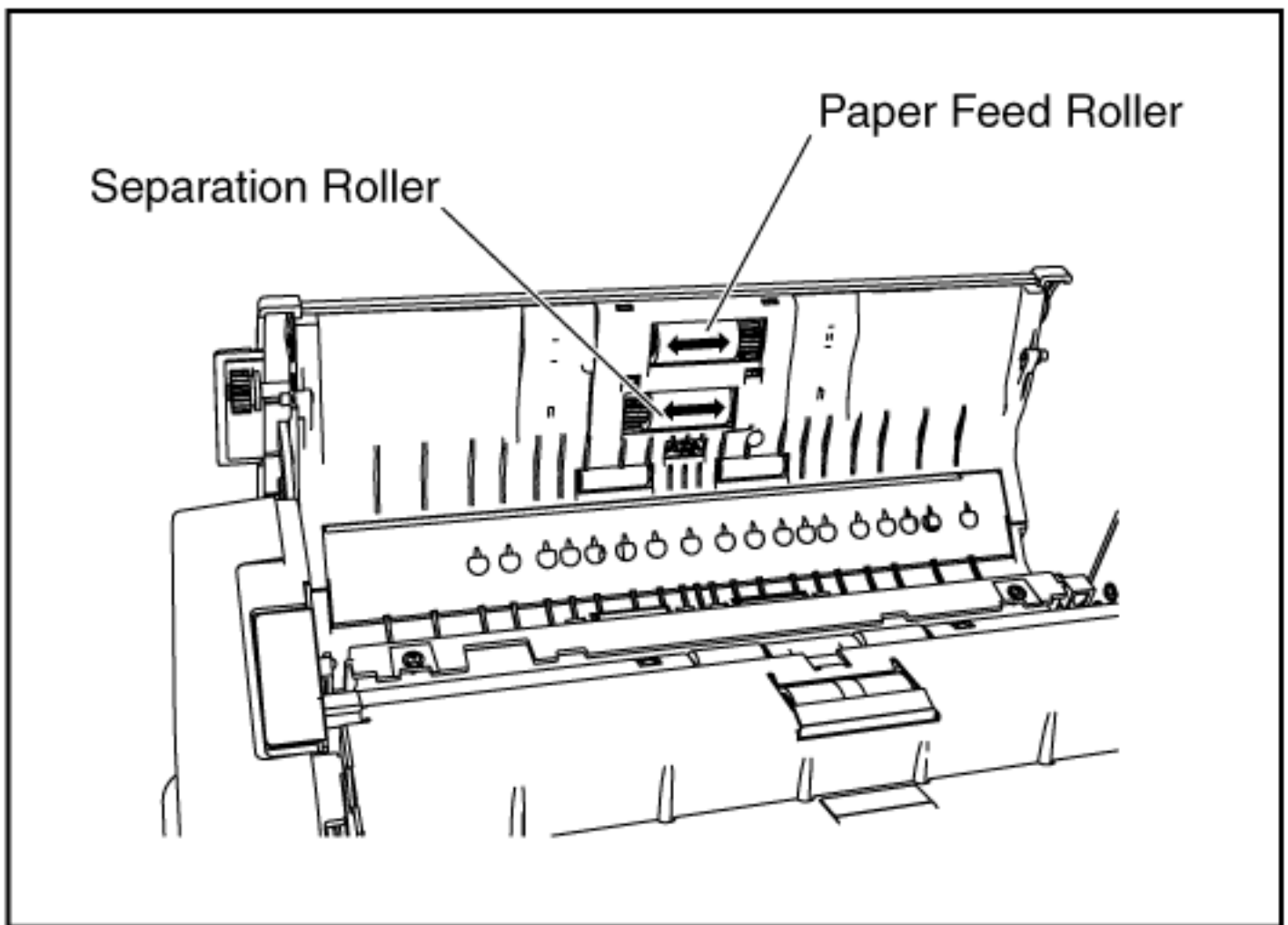


1. Wipe off the dirt on the surfaces of the Paper Feed Roller and Separation Roller with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

Note:

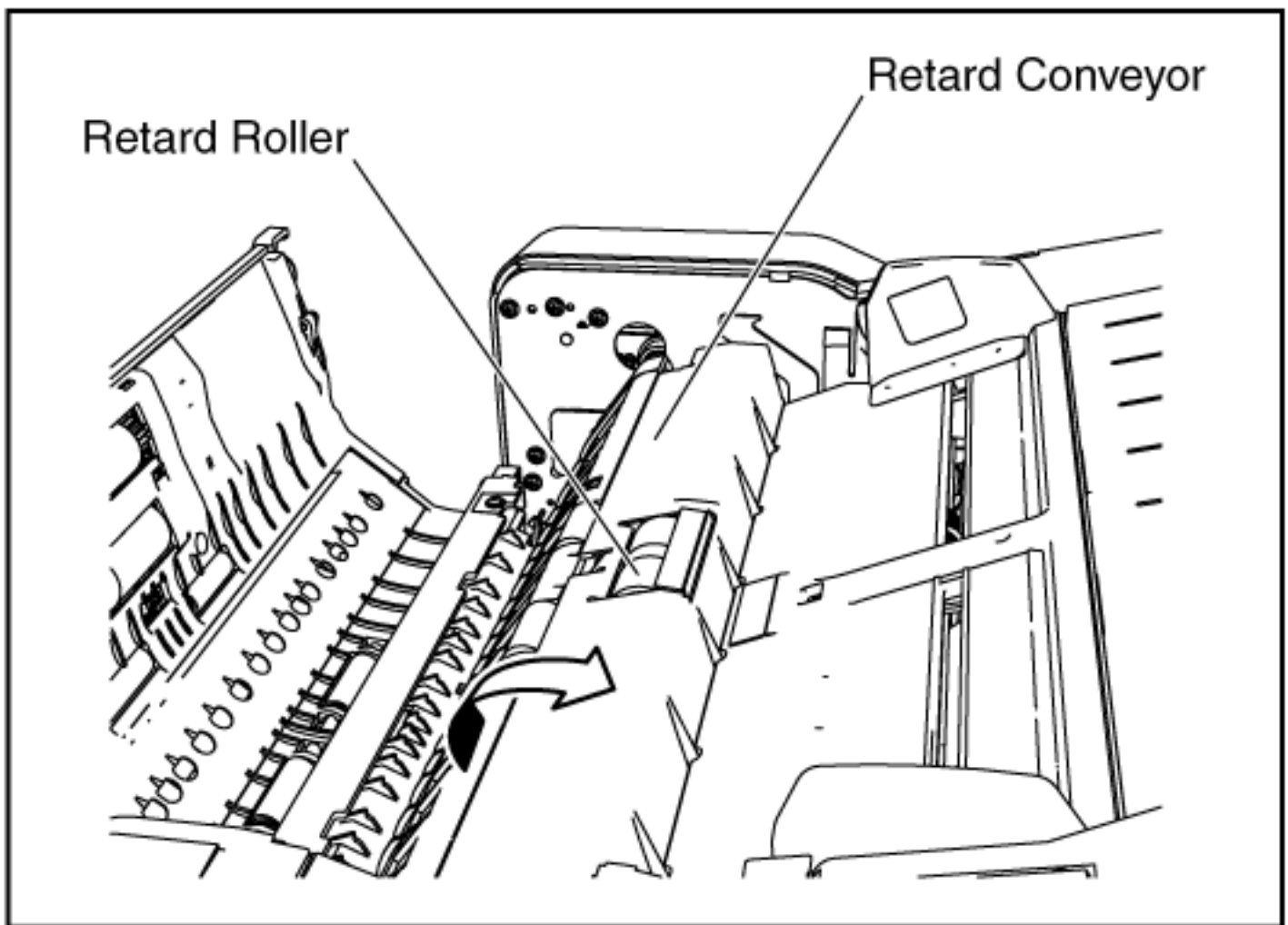
When wiping off the dirt on the roller surfaces, hold the rollers to prevent from rotating, and wipe the roller all the way around them, proceeding from one end to the other in the direction of the arrows shown in the figure.

(Right Side View)



1. Open the Retard Conveyor in the direction of the arrow shown in the figure.

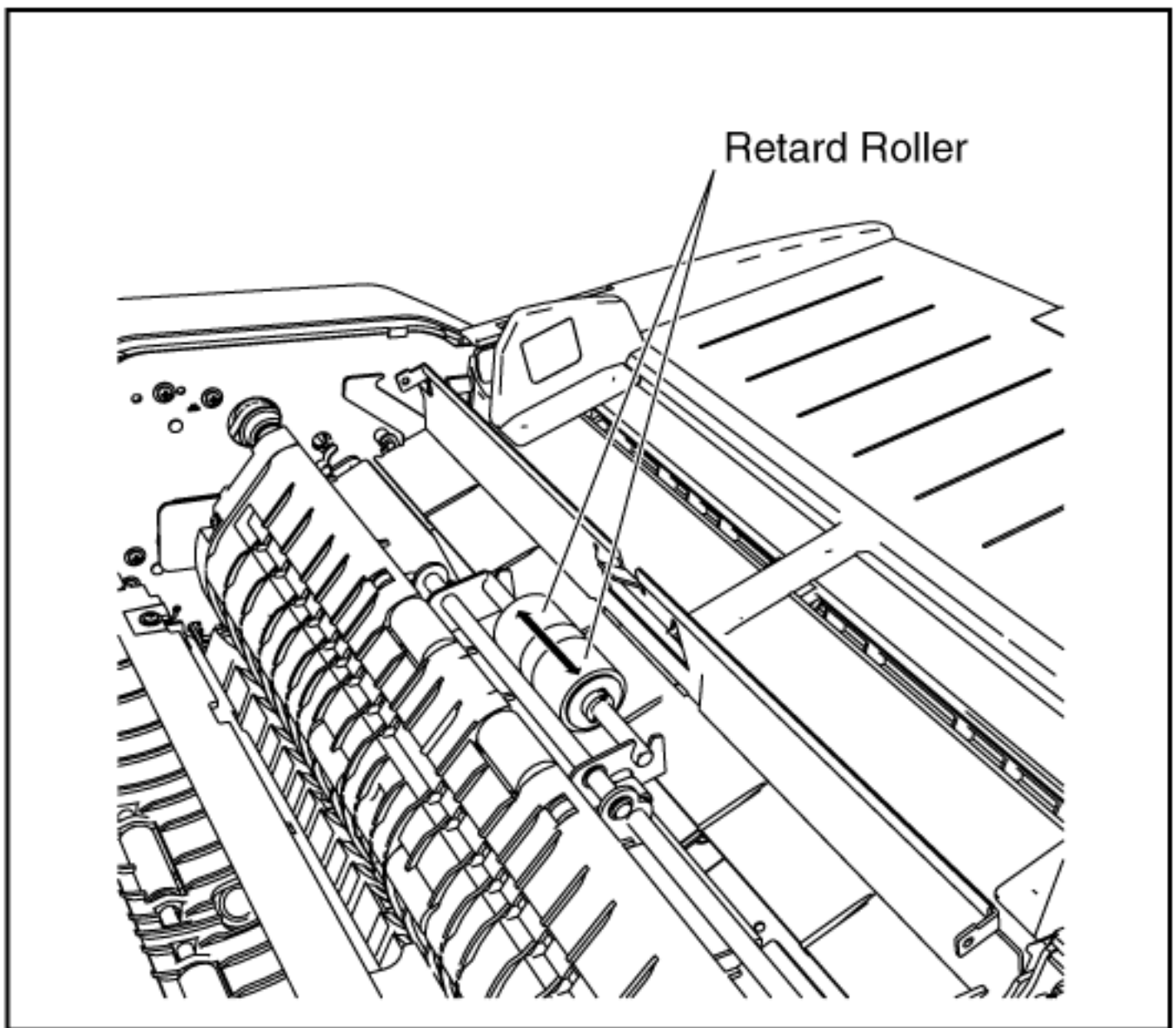
(Top Front View)



1. Clean the surface of the Retard Roller with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

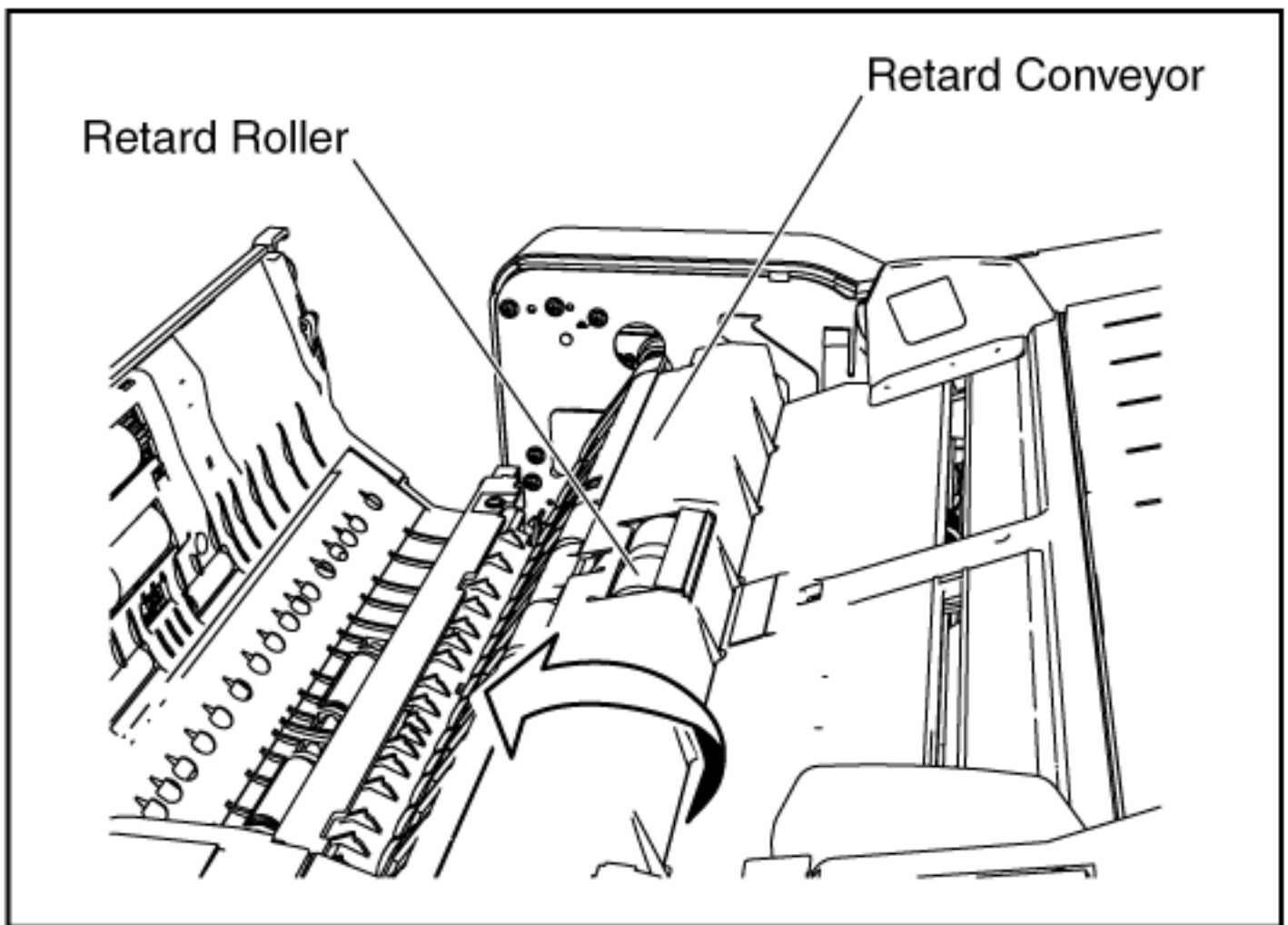
When cleaning it, wipe off the dirt on the roller surface all the way around it, proceeding from one end to the other in the direction of the arrow shown in the figure.

(Left Front View)



1. Close the Retard Conveyor in the direction of the arrow shown in the figure.

(Top Front View)

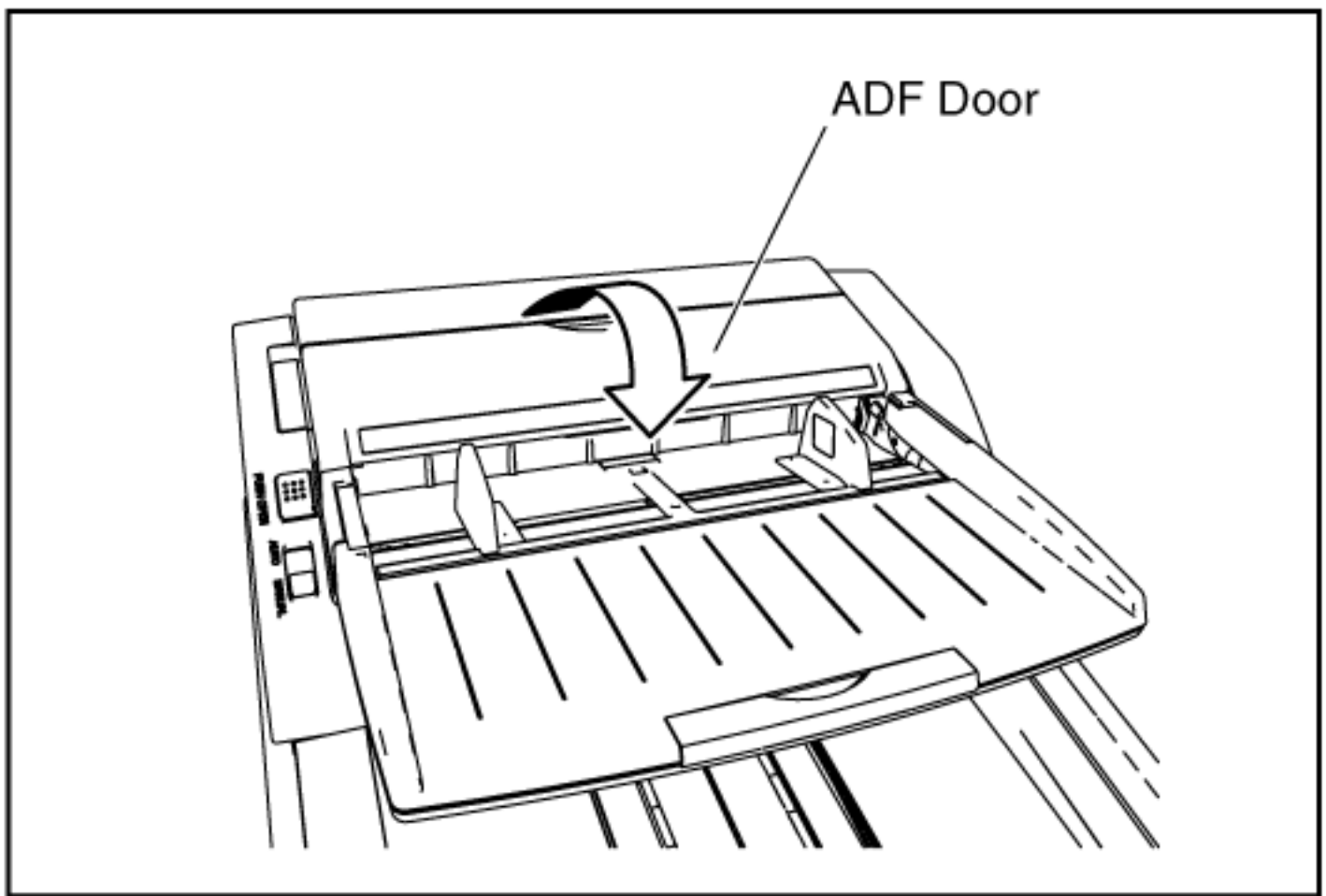


1. Close the ADF Door slowly until it clicks into place.

Note:

After cleaning the Paper Feed, Separation, and Retard Rollers, execute Clear Counter for cleaning roller with Service Utility. (See 9.3.4.)

(Right Side View)



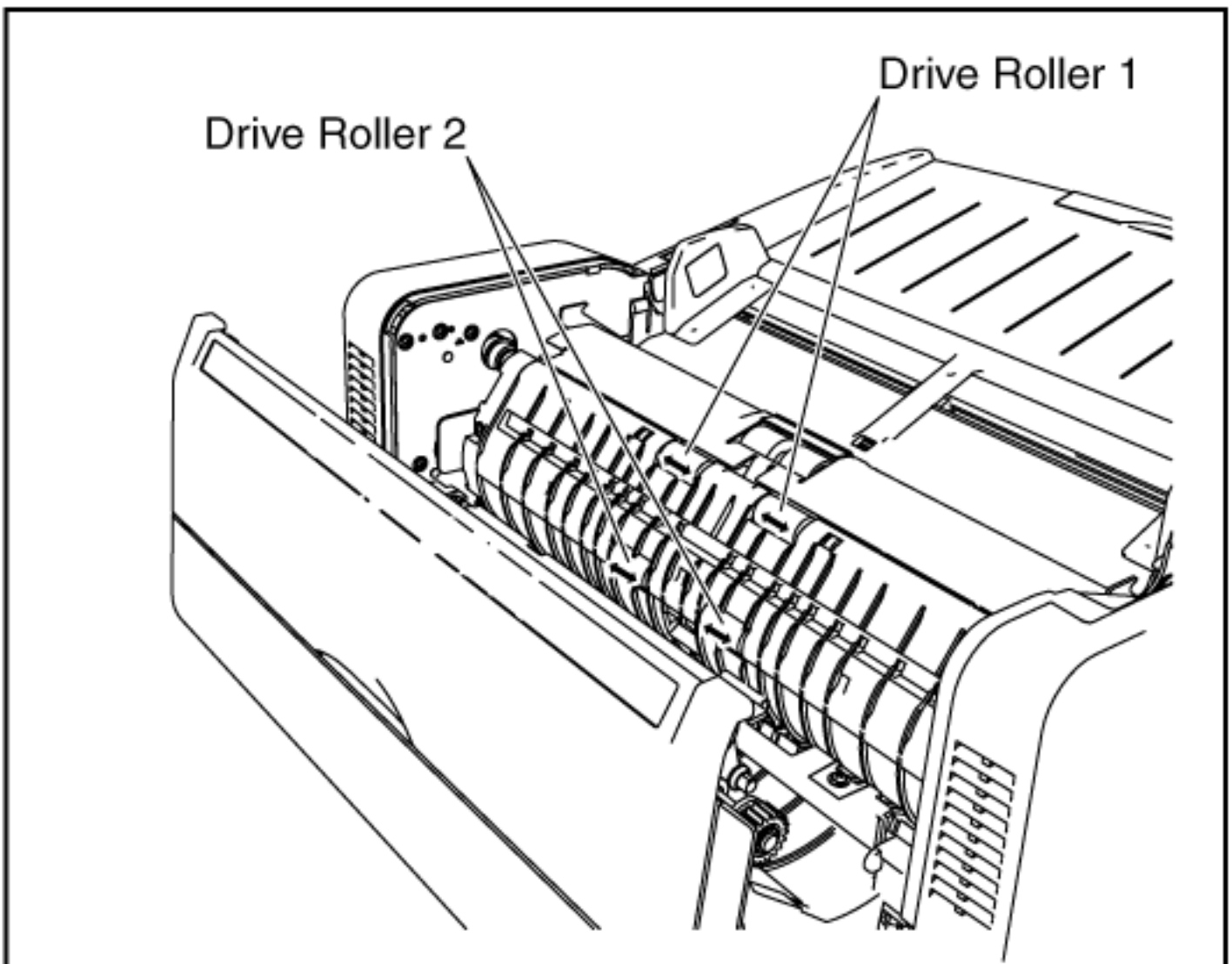
[TOP](#) [PREVIOUS](#) [NEXT](#)

7.2.2 Cleaning Roller-2 (Drive Rollers 1, 2 and Free Rollers)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Turn off the scanner. (See 7.2.1-(1).)
2. Push the ADF Door Release to open the ADF Door.
(See 7.2.1-(2).)
3. Wipe off the dirt on the surfaces of the Drive Rollers 1, 2 in the direction of the arrows shown in the figure with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

(Left FrontView)



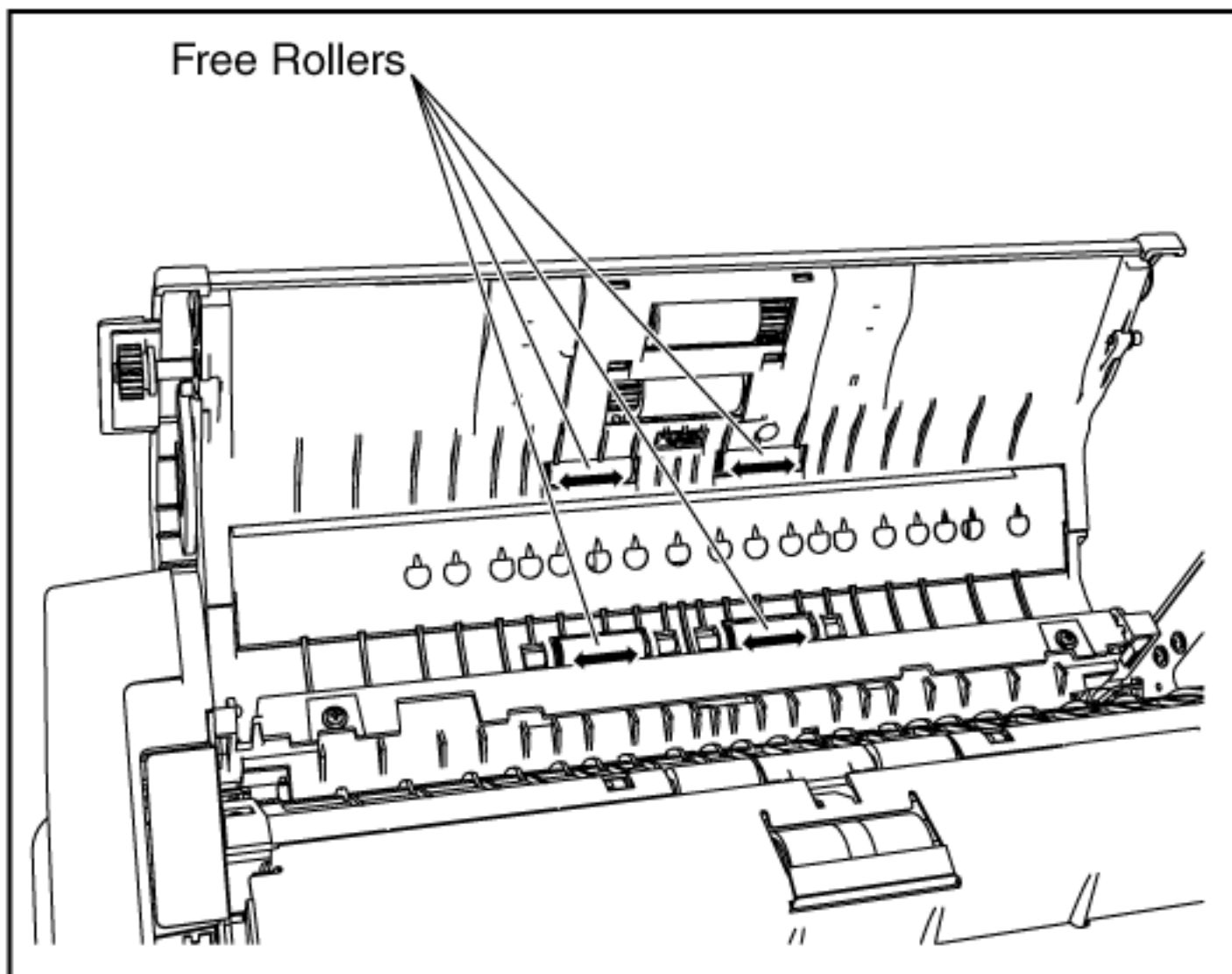
1. Clean the surfaces of the Free Rollers with the accessory Roller Cleaning Paper or

Model KV-SS03 (Option: Roller cleaning Paper).

When cleaning them, wipe off the dirt on the roller surfaces all the way around them proceeding from one end to the other in the direction of the arrows shown in the figure.

2. Close the ADF Door slowly until it clicks into place.
(See 7.2.1-(7).)

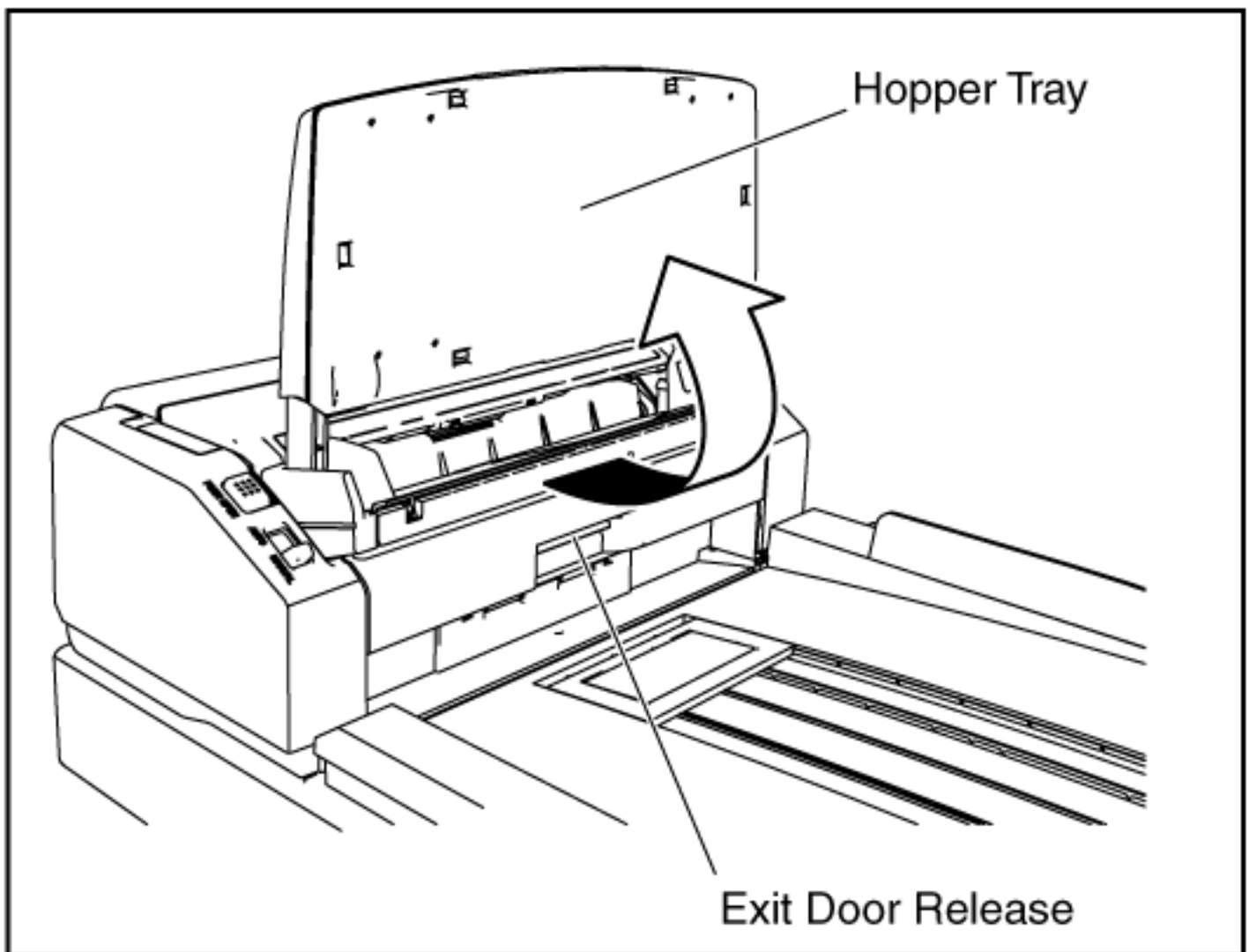
(Right Side View)



7.2.3 Cleaning Roller-3 (Drive Rollers 3, 4, Free Rollers, and Exit Roller)

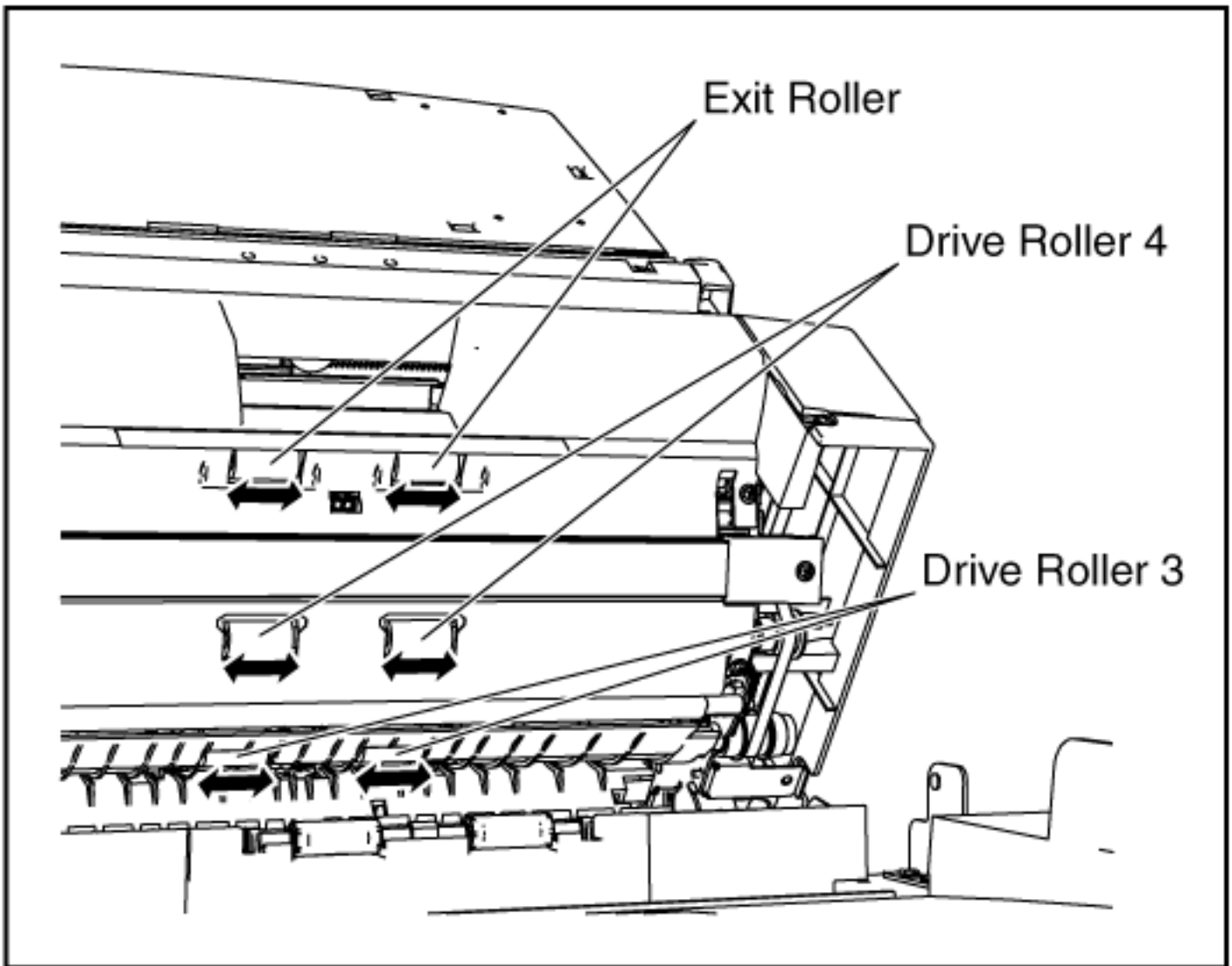
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Turn off the scanner. (See 7.2.1-(1).)
2. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door.



1. Wipe off the dirt on the surfaces of the Drive Rollers 3, 4, and Exit Roller in the direction of the arrows shown in the figure with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

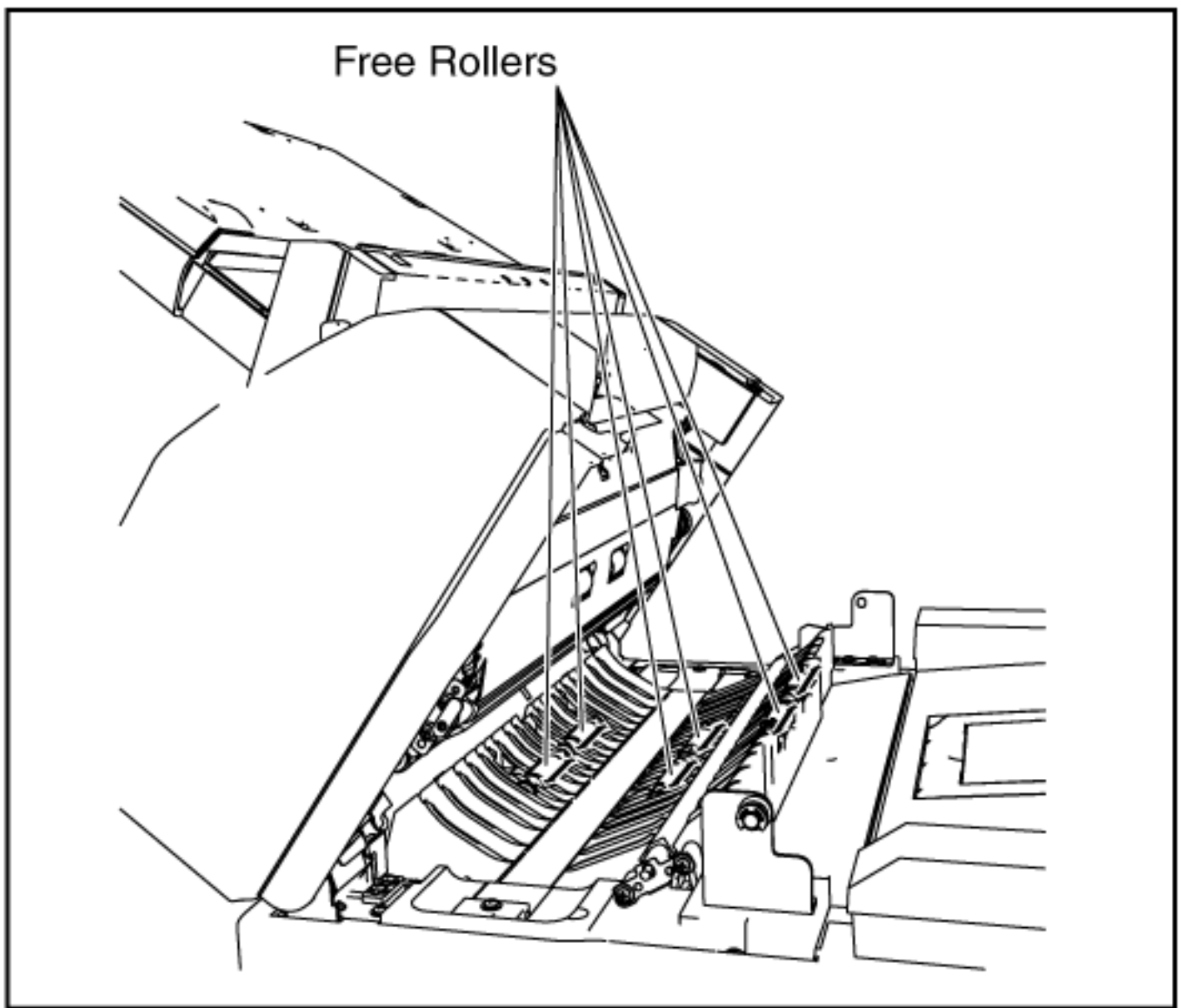
(RightSide View)



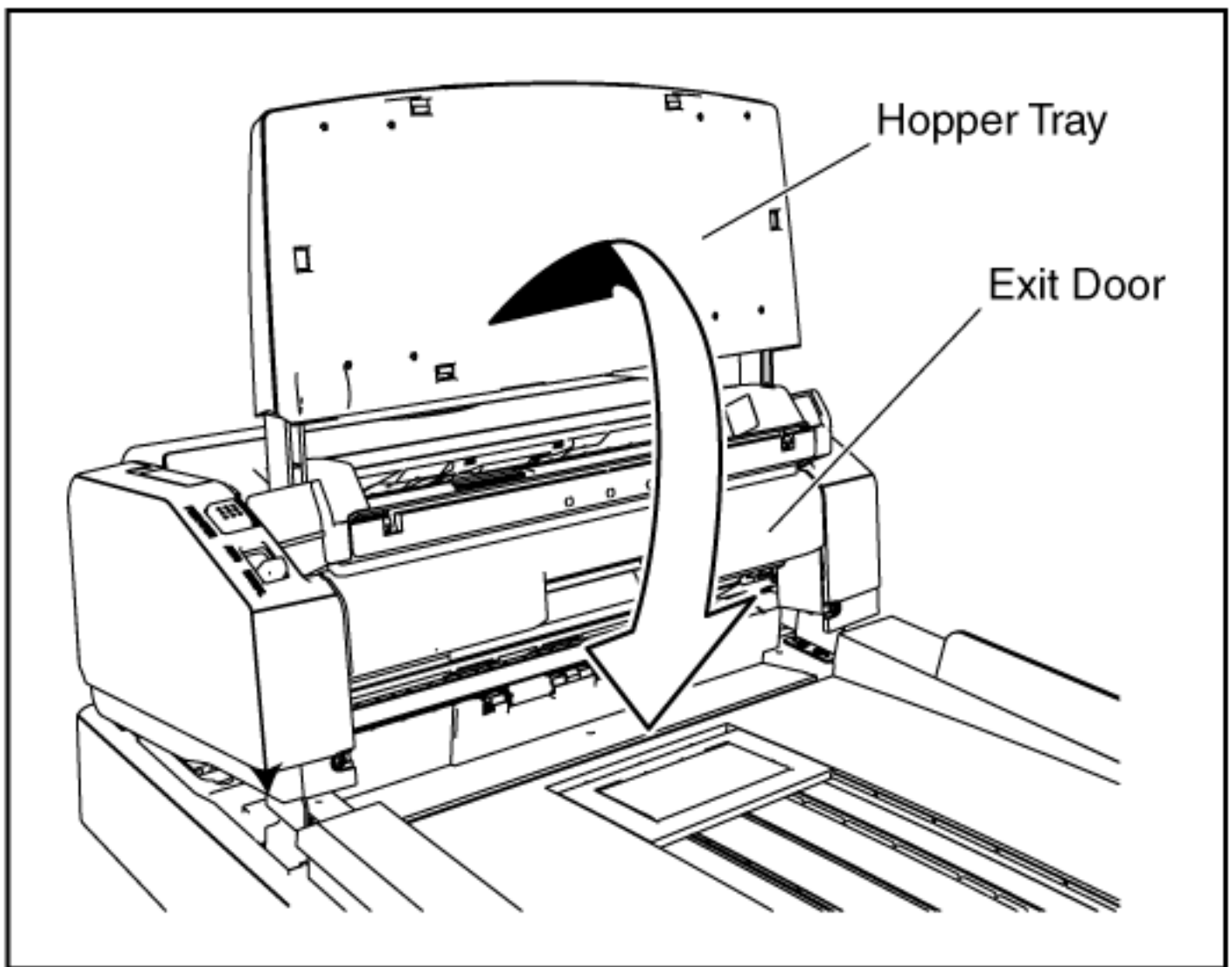
1. Clean the surfaces of the Free Rollers with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

When cleaning them, wipe off the dirt on the roller surfaces all the way around them, proceeding from one end to the other in the direction of the arrows shown in the figure.

(Front View)



1. Close the Exit Door slowly until it clicks into place and put back the Hopper Tray to the original position.



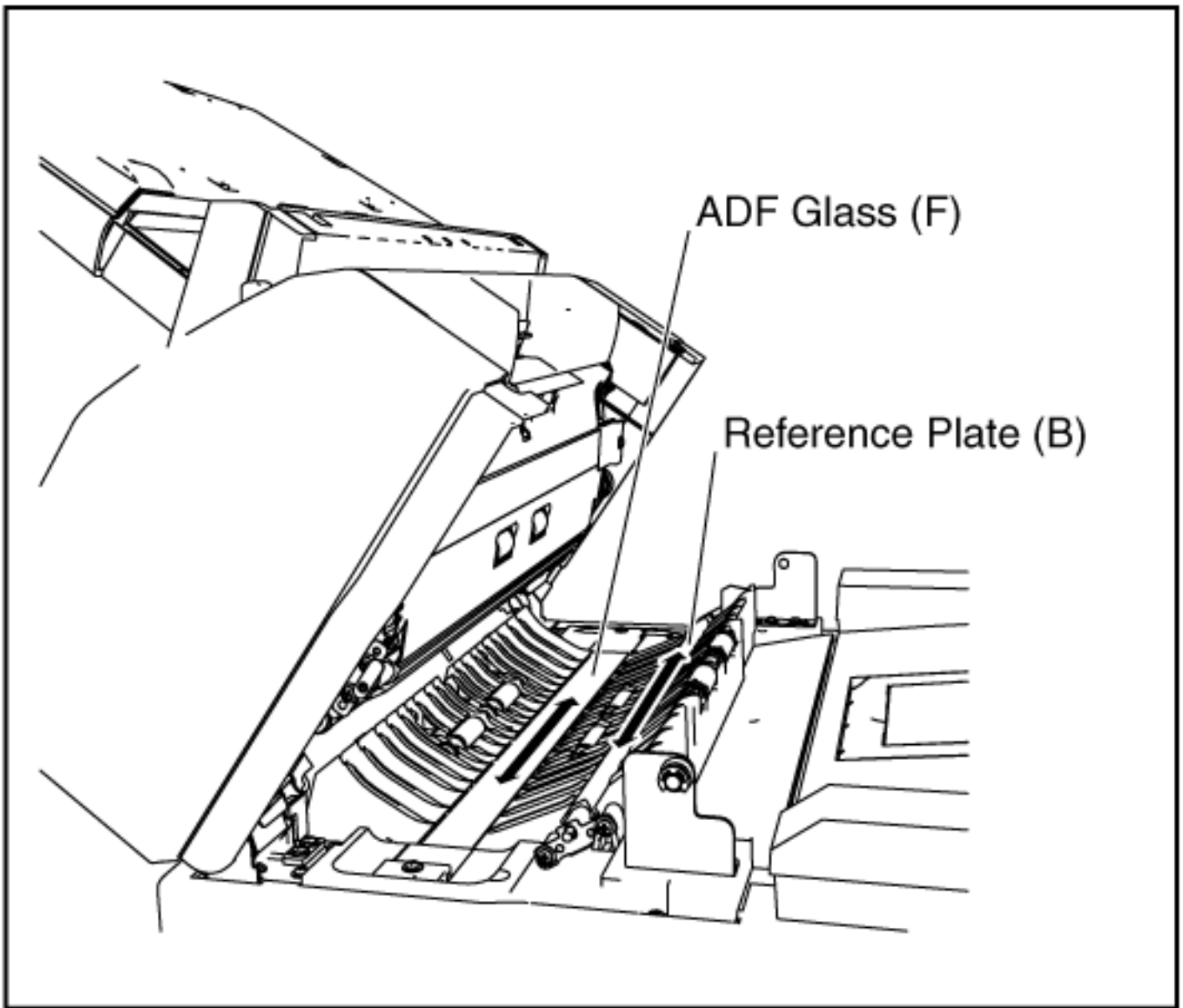
[TOP](#) [PREVIOUS](#) [NEXT](#)

7.2.4 Cleaning Reference Plate and ADF Glass

[TOP](#) [PREVIOUS](#) [NEXT](#)

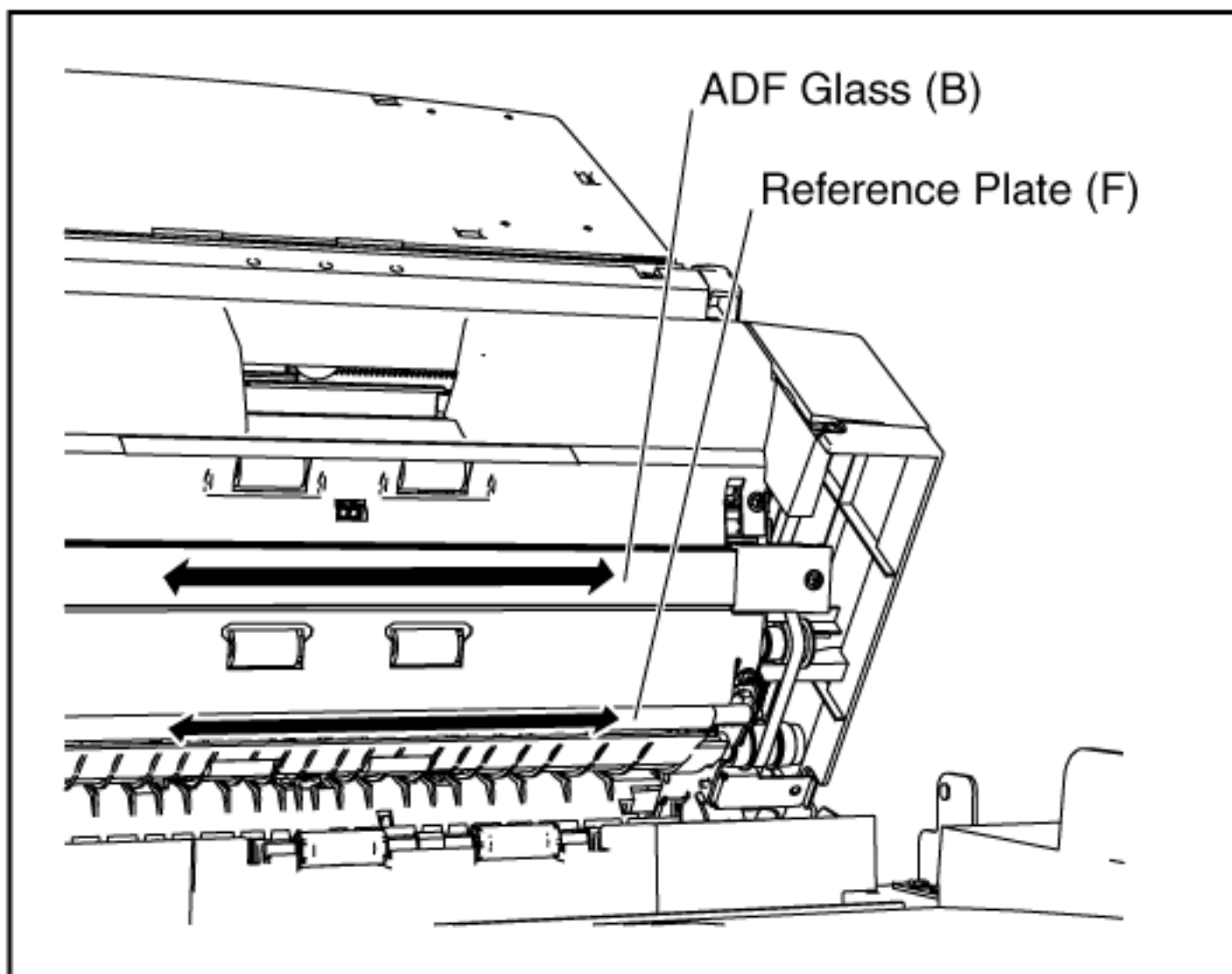
1. Turn off the scanner. (See 7.2.1-(1).)
2. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door.
(See 7.2.3-(2).)
3. Wipe off the ADF Glass (F) and Reference Plate (B) in the direction of the arrows shown in the figure with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).

(Front View)



1. Wipe off the ADF Glass (B) and Reference Plate (F) in the direction of the arrows shown in the figure with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper).
2. Close the Exit Door slowly until it clicks into place and put back the Hopper Tray to the original position.
(See 7.2.3-(5).)

(Right View)



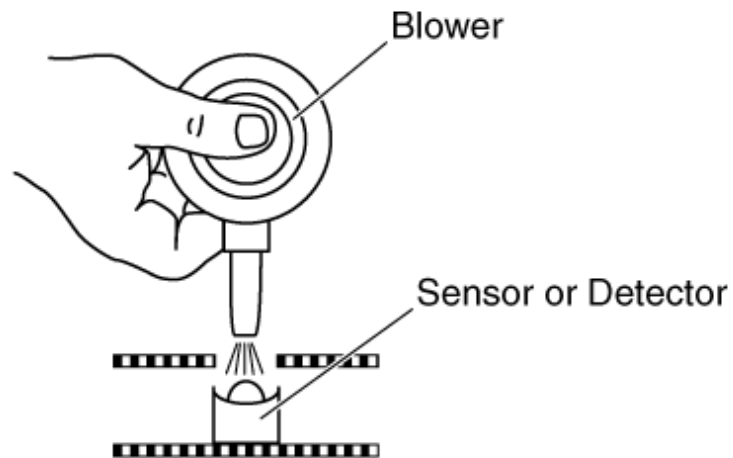
[TOP](#) [PREVIOUS](#) [NEXT](#)

7.2.5 Cleaning Sensors and Reflector Sheets-1 (Paper and Waiting Sensors, Double Feed Detector)

[TOP](#) [PREVIOUS](#) [NEXT](#)

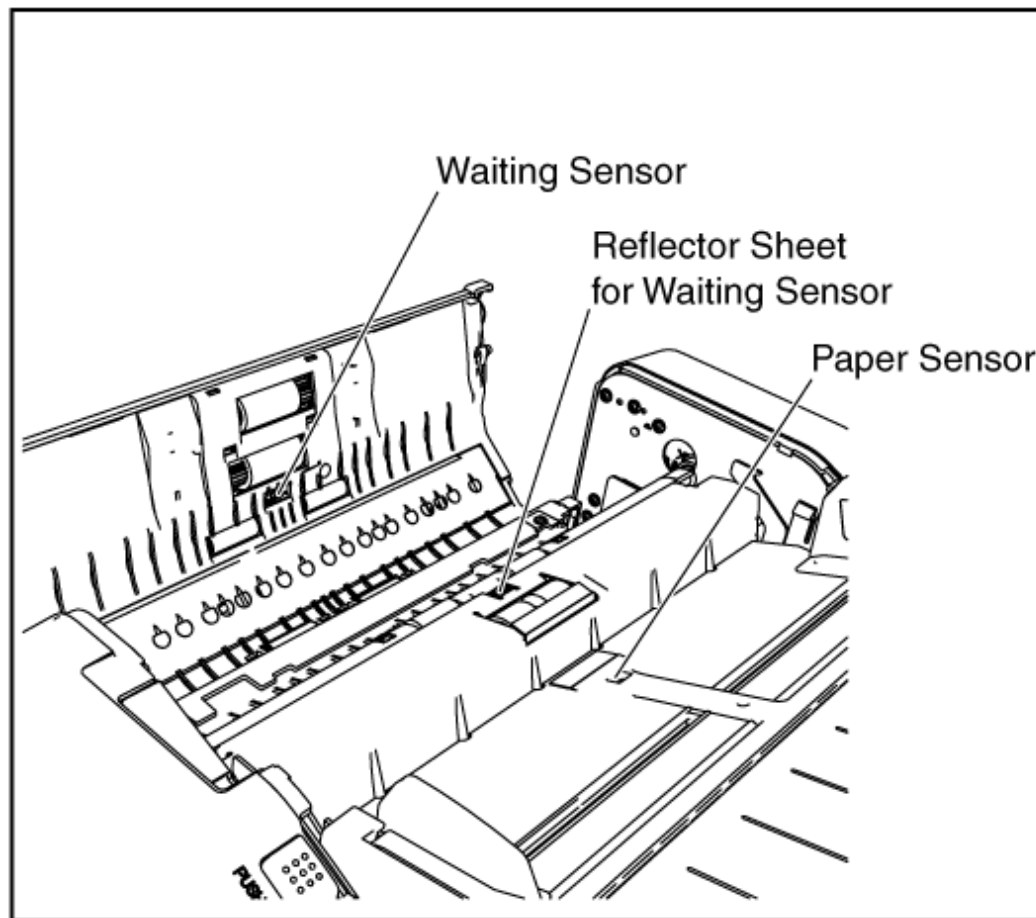
[How to clean sensors \(detectors\) and reflectors.](#)

Remove the brush from the accessory Blower and blow off the dirt with the blower.



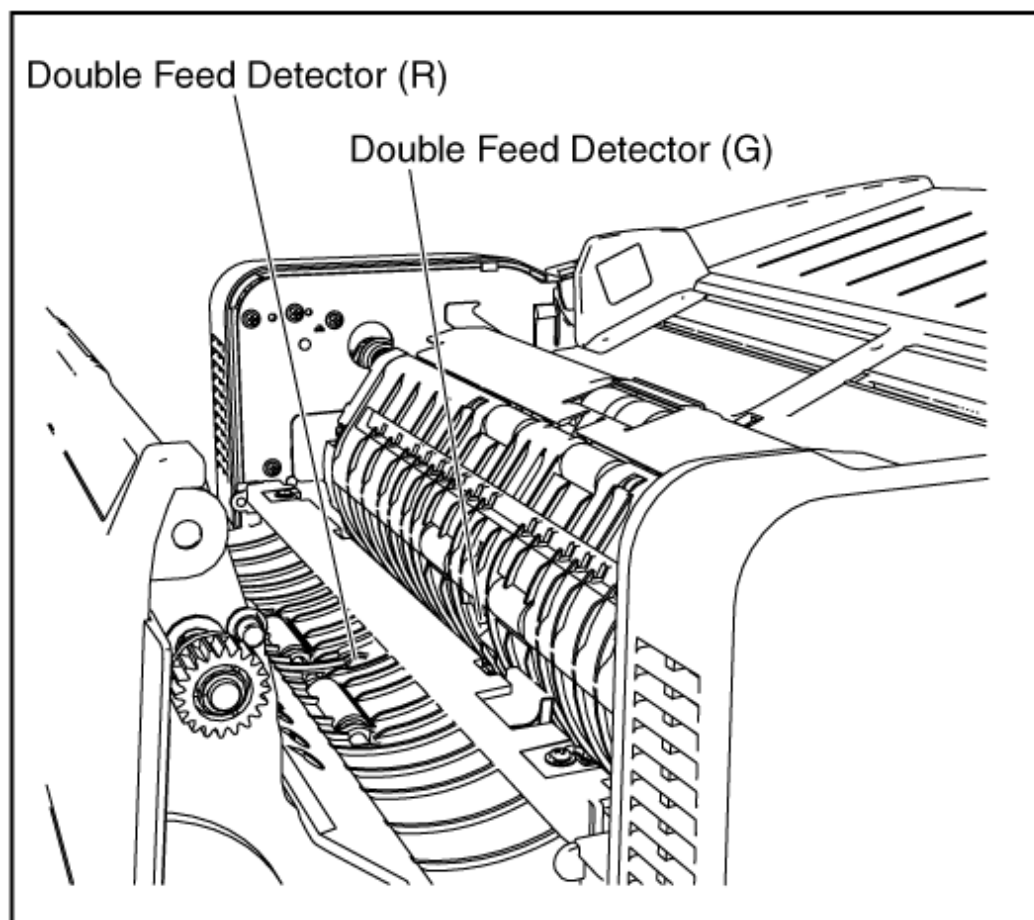
1. Turn off the scanner. (See 7.2.1-(1).)
2. Push the ADF Door Release to open the ADF Door.
(See 7.2.1-(2).)
3. Blow off the dirt on the surface of the Paper Sensor and Waiting Sensor with an accessory blower.
4. And also blow off the dirt on the surface of the Reflector Sheet for the Waiting Sensor with the accessory blower.

[\(Top Front View\)](#)



1. Blow off the dirt from the Double Feed Detector (G) and Double Feed Detector (R) with the accessory blower.
2. Close the ADF Door slowly until it clicks into place.
(See 7.2.1-(7).)

(Front View)

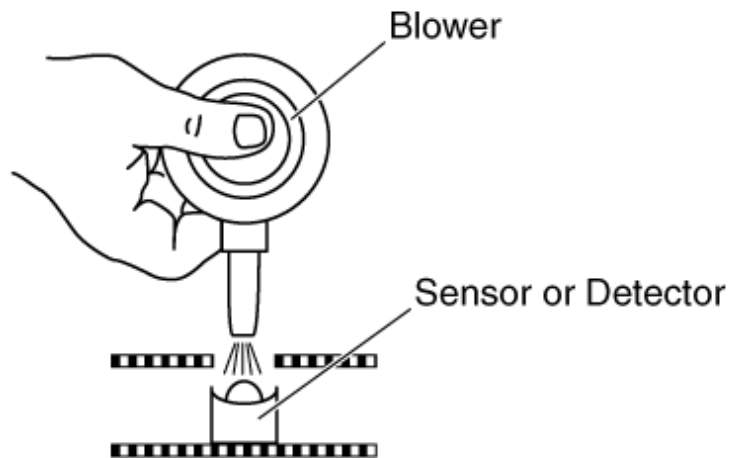


7.2.6 Cleaning Sensors and Reflector Sheets-2 (Starting, Skew (L), Skew (R), and Ending Sensors)

[TOP](#) [PREVIOUS](#) [NEXT](#)

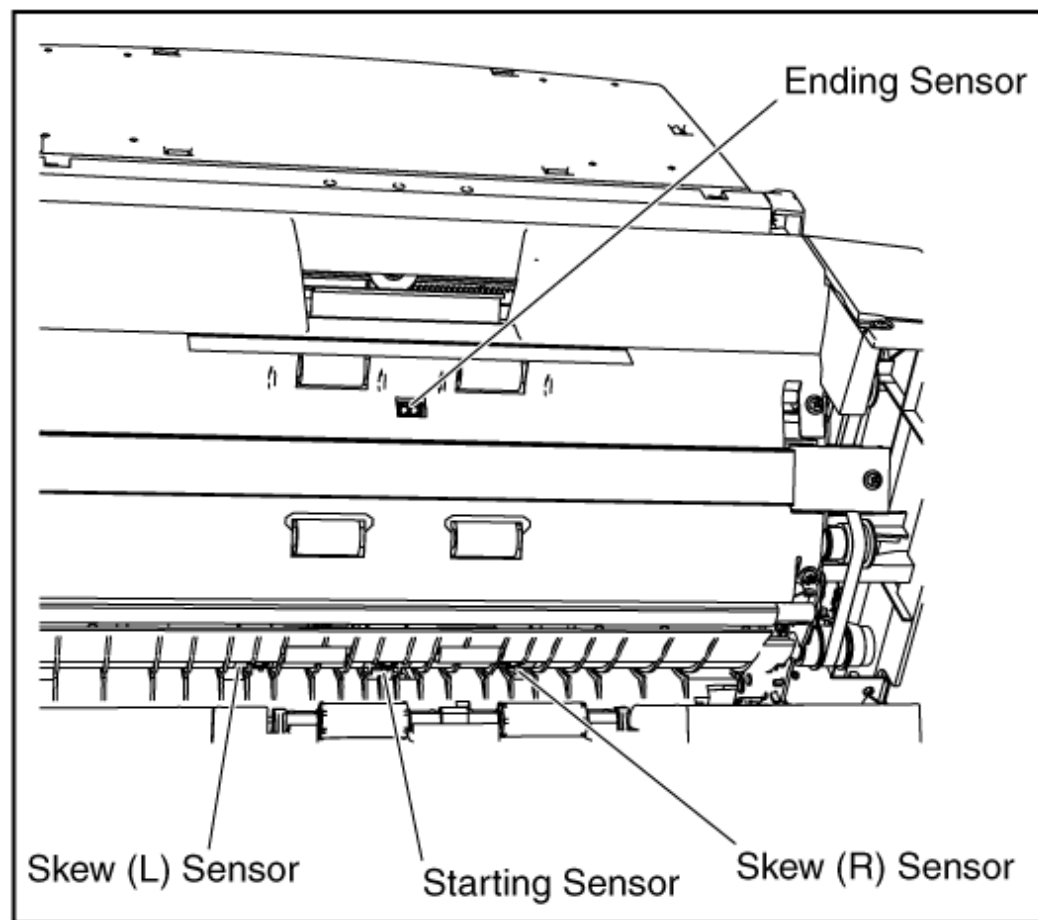
[How to clean sensors \(detectors\) and reflectors.](#)

Remove the brush from the accessory Blower and blow off the dirt with the blower.



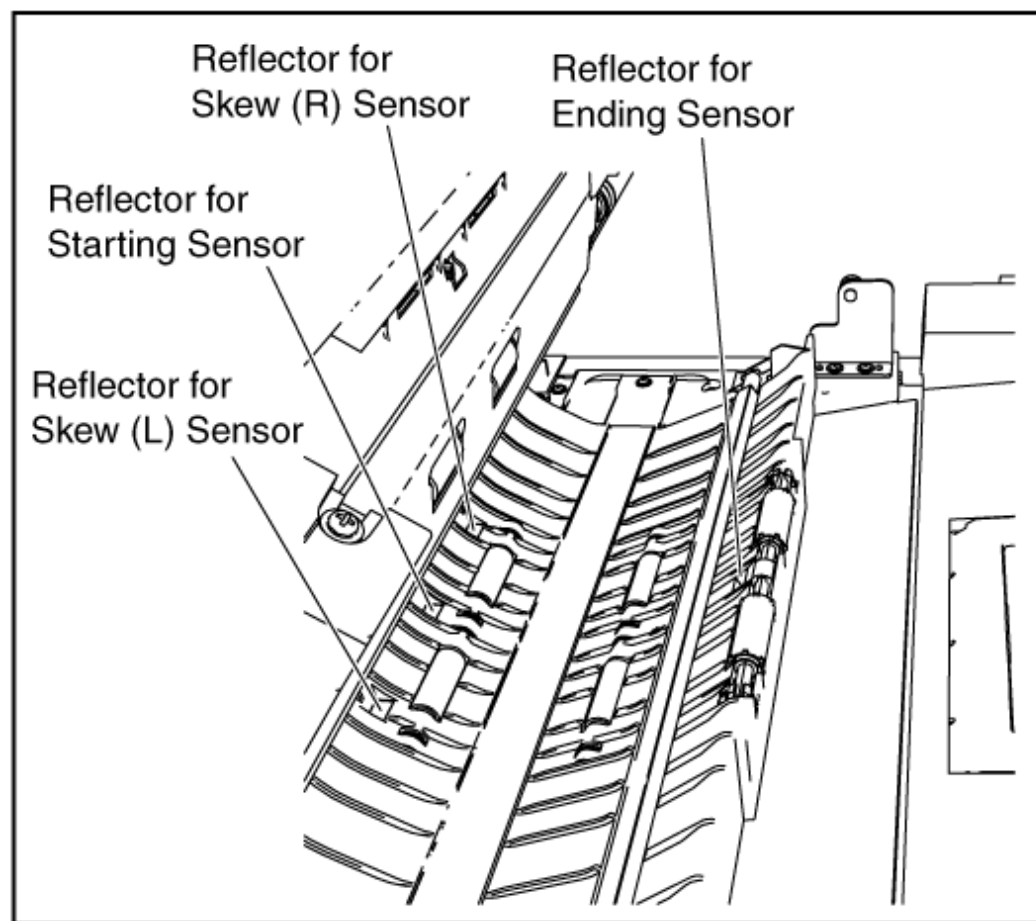
1. Turn off the scanner. (See 7.2.1-(1).)
2. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door. (See 7.2.3-(2).)
3. Blow off the dirt on the surface of the Starting, Skew (L), Skew (R), and Ending Sensors with the accessory blower.

[\(Right Side View\)](#)



1. And blow off the dirt from the Reflector Sheets for the Starting, Skew (L), Skew (R), and Ending Sensors with the blower.
2. Close the Exit Door slowly until it clicks into place and put back the Hopper Tray to the original position.
(See 7.2.3-(5).)

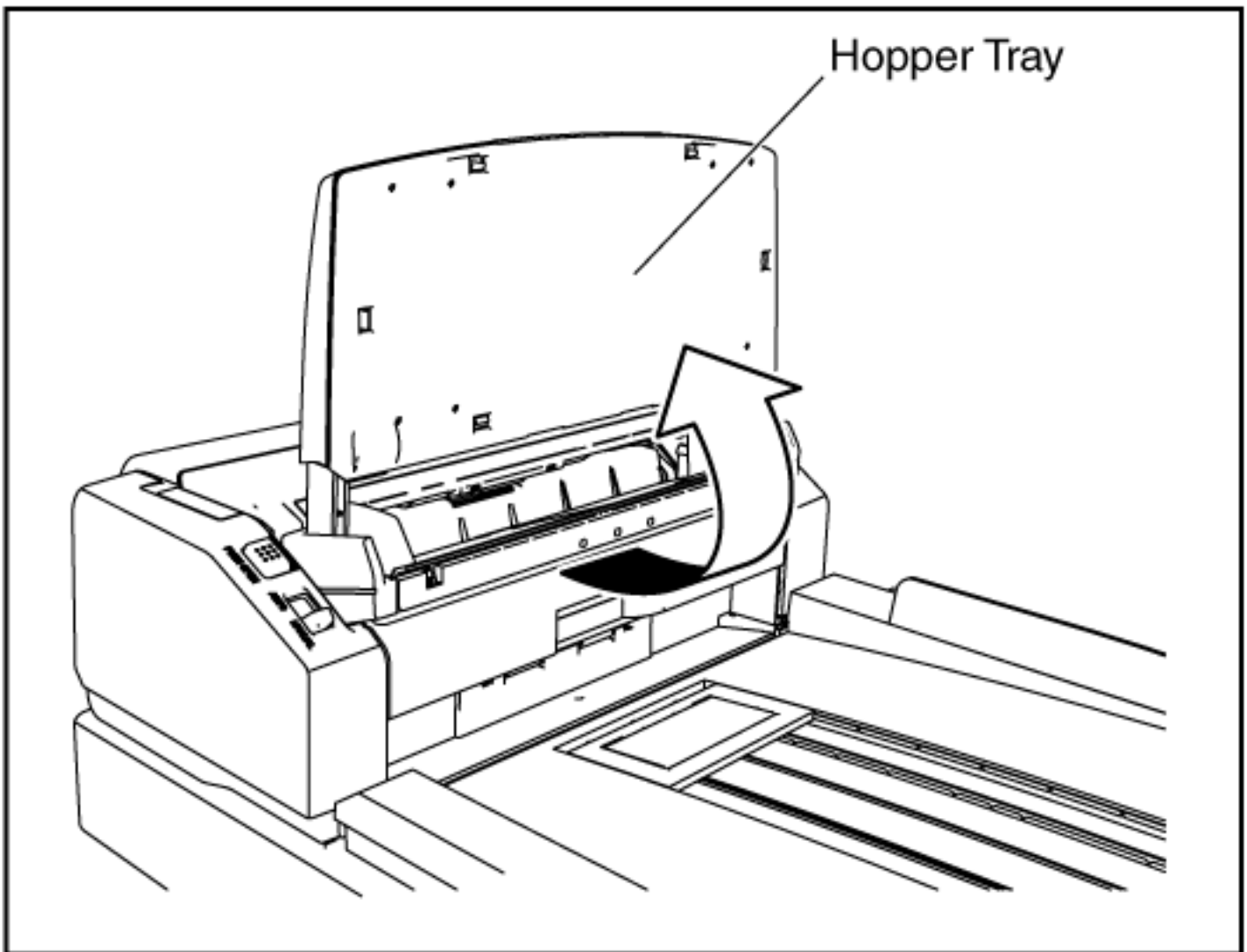
(Front View)



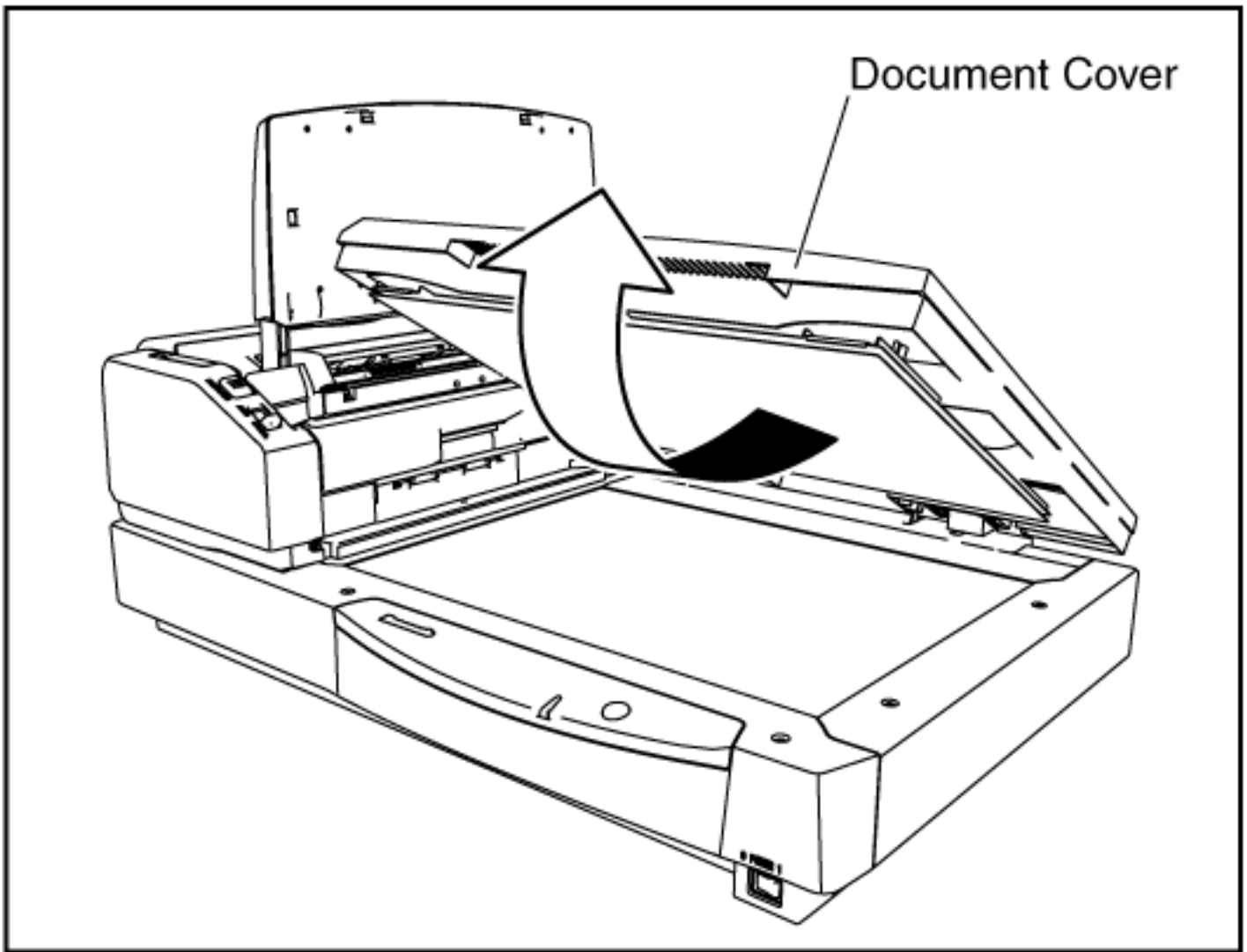
7.2.7 Cleaning Flatbed Glass

[TOP](#) [PREVIOUS](#) [NEXT](#)

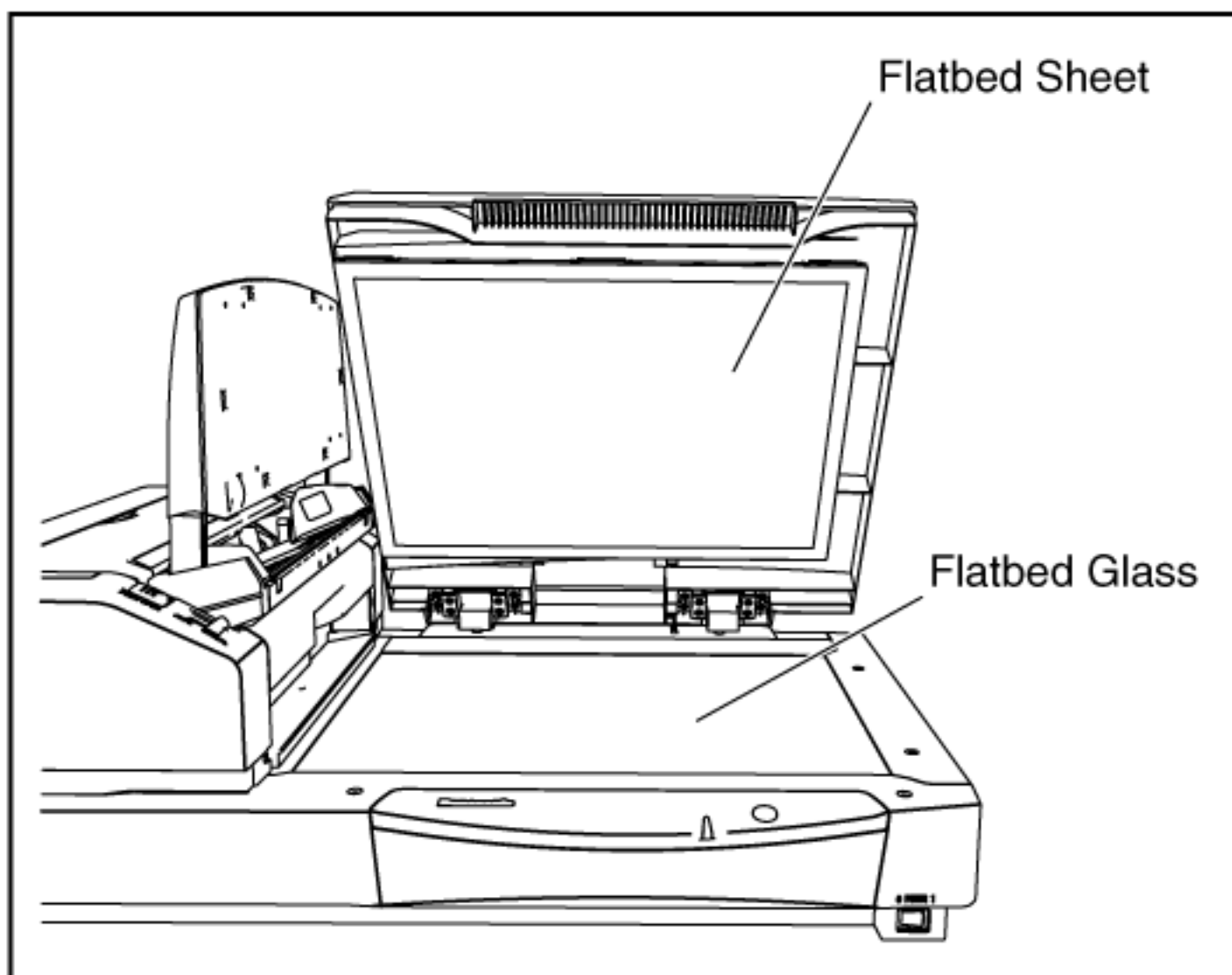
1. Turn off the scanner. (See 7.2.1-(1).)
2. Fold the Hopper Tray in the direction of the arrow.



1. Open the Document Cover.



1. Clean up the surface of Flatbed Glass with the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper) to remove the dirt.
(Also clean up the surface of the Flatbed Sheet, as required.)
2. Close the Document Cover and put back the Hopper Tray to the original position.



[TOP](#) [PREVIOUS](#) [NEXT](#)

7.3 Replacing Limited Life Parts

[TOP](#) [PREVIOUS](#) [NEXT](#)

[7.3.1 Replacing Paper Feed Roller Module](#)

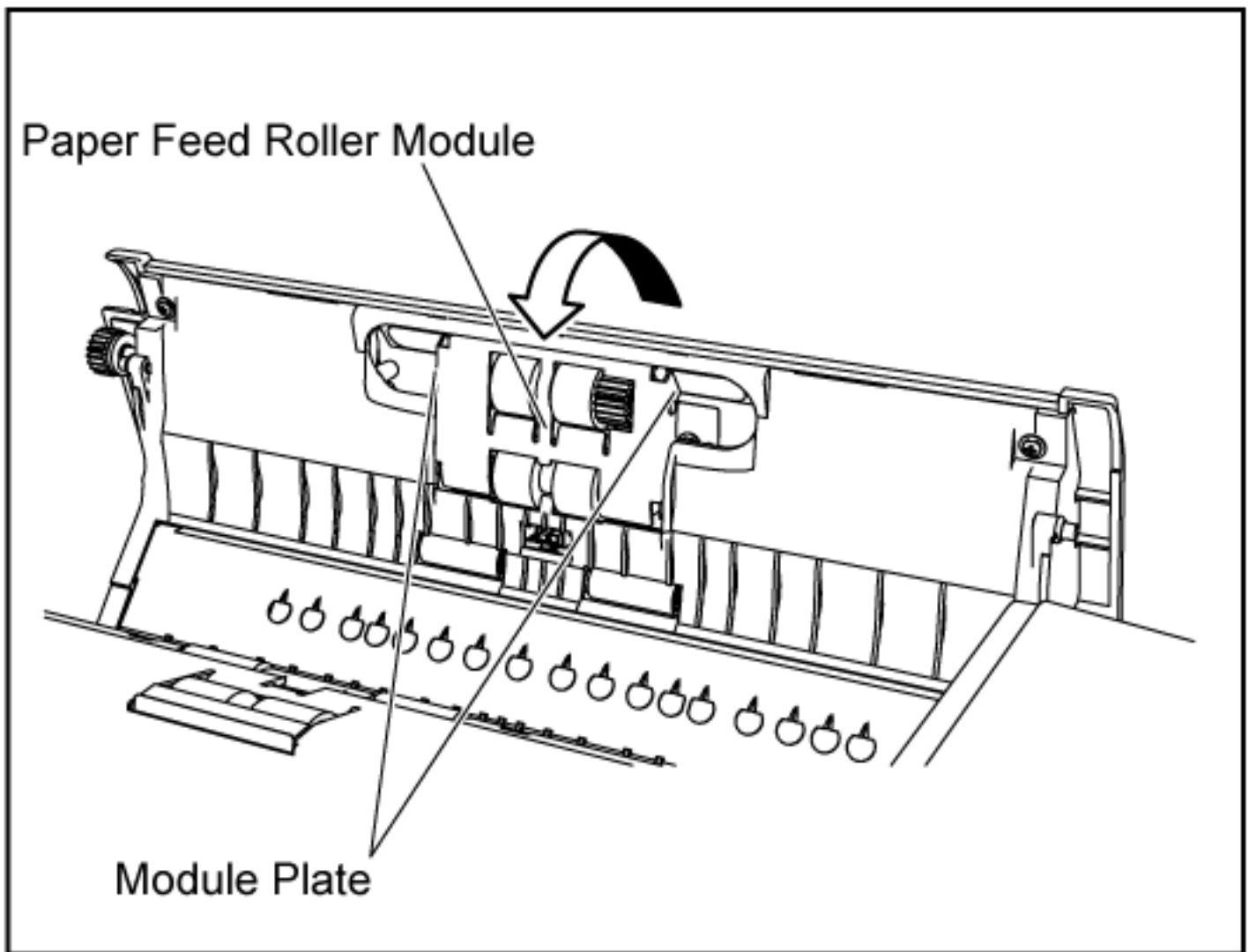
[7.3.2 Replacing Retard Roller](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

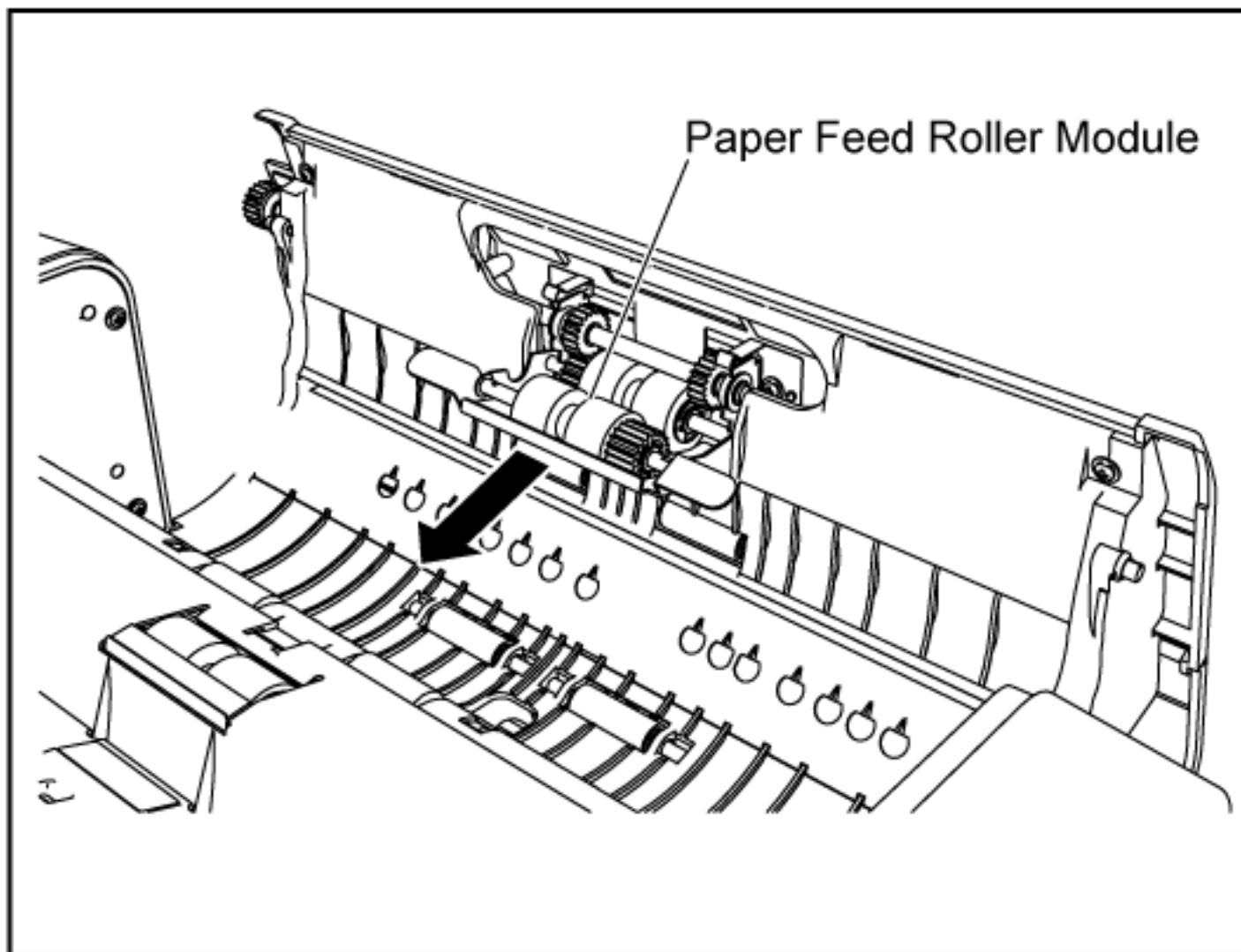
7.3.1 Replacing Paper Feed Roller Module

[TOP](#) [PREVIOUS](#) [NEXT](#)

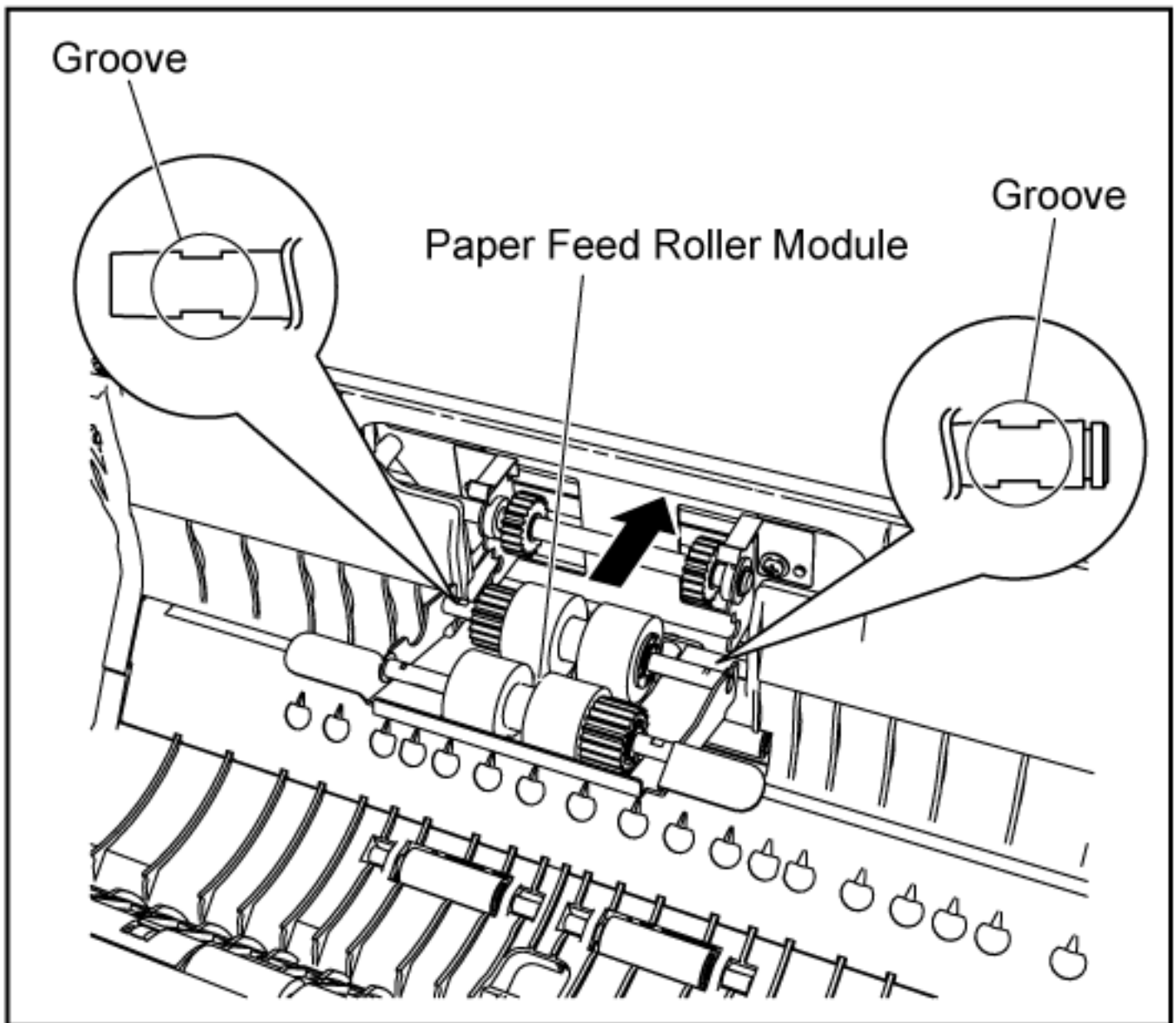
1. Turn off the scanner. (See 7.2.1-(1).)
2. Push the ADF Door Release to open the ADF Door.
(See 7.2.1-(2).)
3. Pull down the Paper Feed Roller Module, holding both sides of the module plate in the direction of the arrow.



1. Remove the Paper Feed Roller Module as shown on the figure.
2. Open the optional Roller Exchange Kit (KV-SS015), and take out the Paper Feed Roller Module.



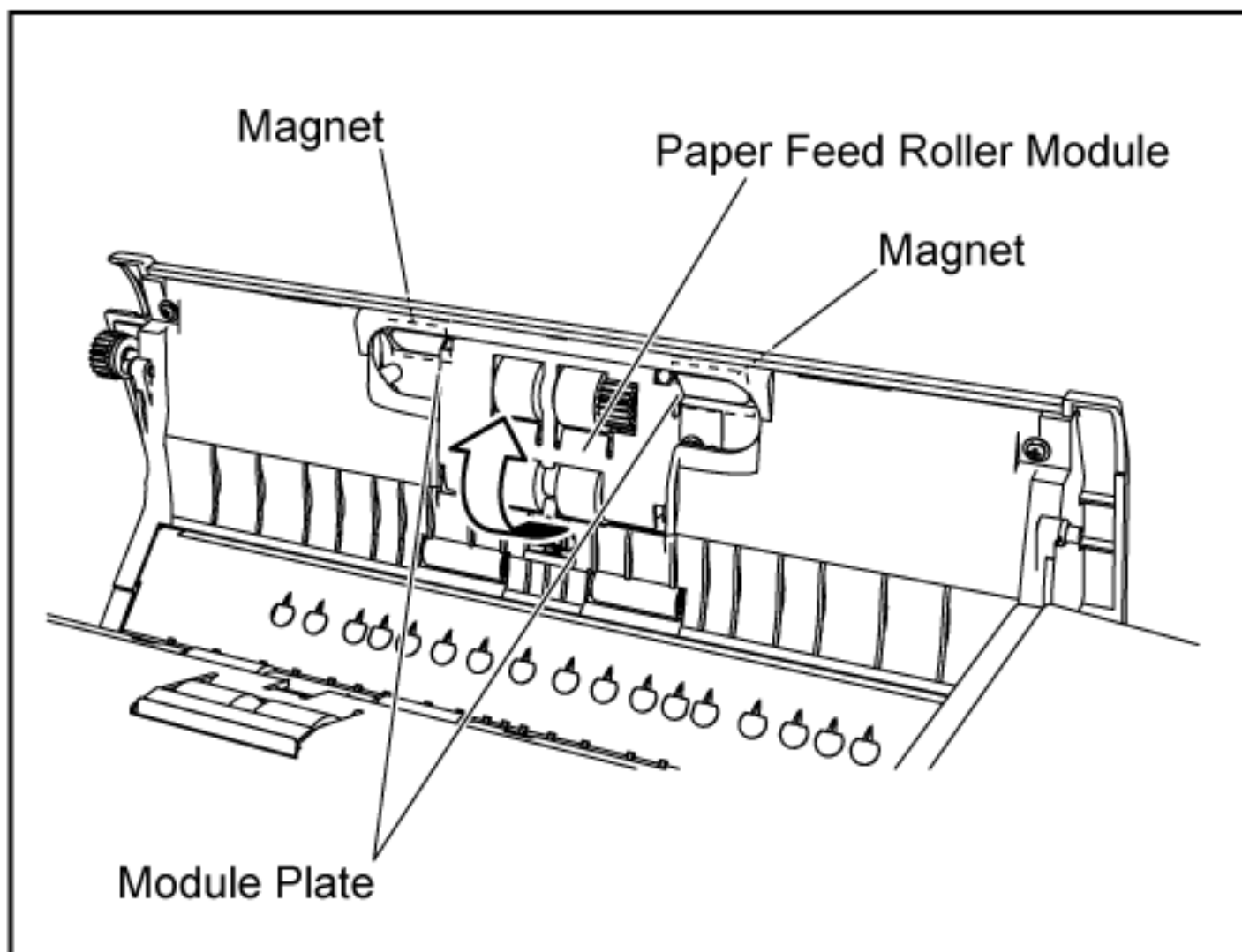
1. Install a new Paper Feed Roller Module.



1. Push up the new Paper Feed Roller Module in the direction of the arrow, so that the module is locked by the magnet plates on both sides.
2. Close the ADF Door slowly until it clicks into place.
(See 7.2.1-(7).)

Note:

After replacing the above Paper Feed Roller Module and the following sections (7.3.2) Retard Roller, execute Clear Counter for replacing roller with Service Utility. (See 9.3.4.)

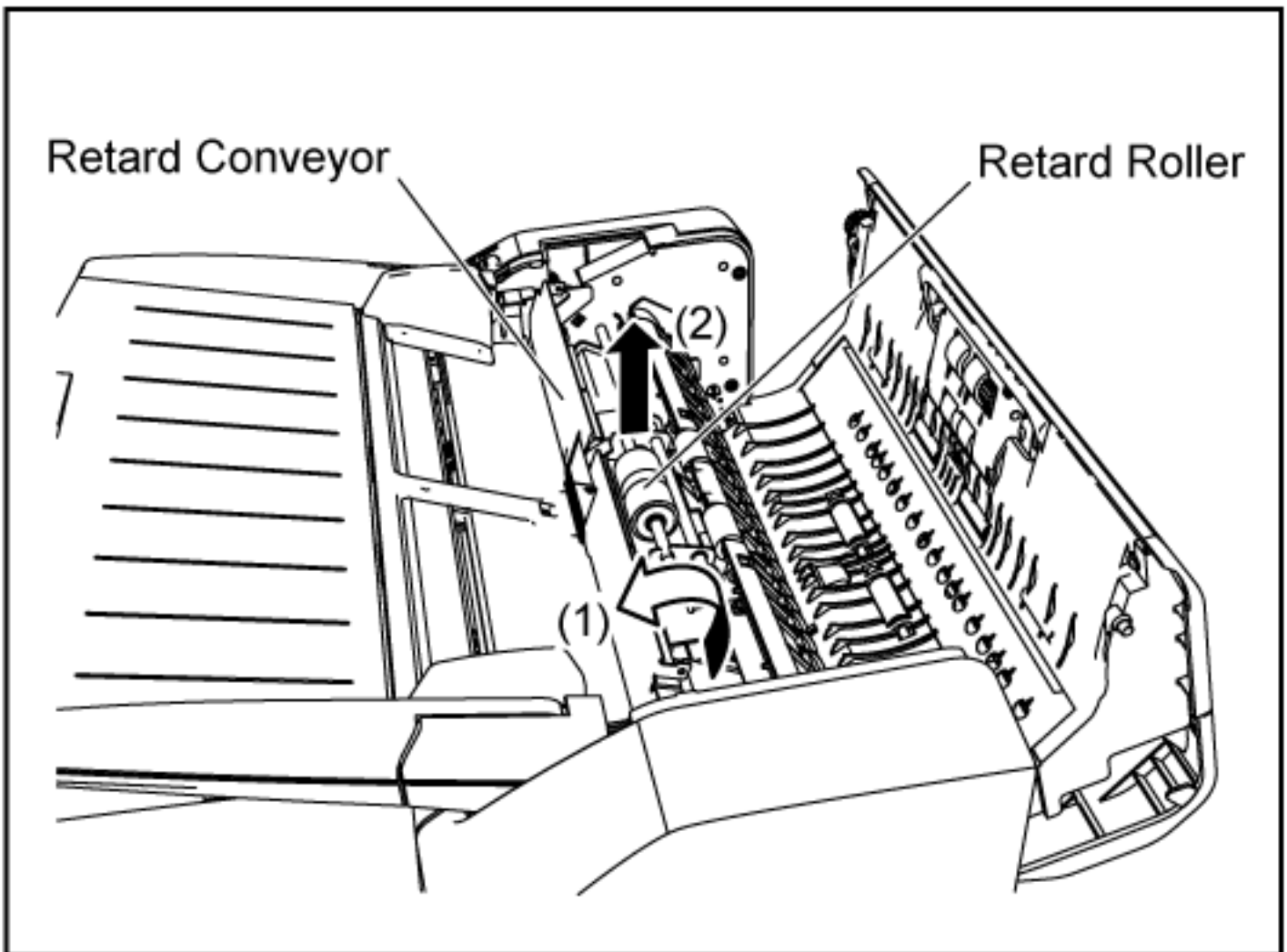


[TOP](#) [PREVIOUS](#) [NEXT](#)

7.3.2 Replacing Retard Roller

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Turn off the scanner. (See 7.2.1-(1).)
2. Push the ADF Door Release to open the ADF Door.
(See 7.2.1-(2).)
3. Open the Retard Conveyor in the direction of the arrow (1).
4. Remove the Retard Roller, pulling up the shaft in the direction of the arrow (2).
5. Take out a new Retard Roller in the optional Roller Exchange Kit (KV-SS015).

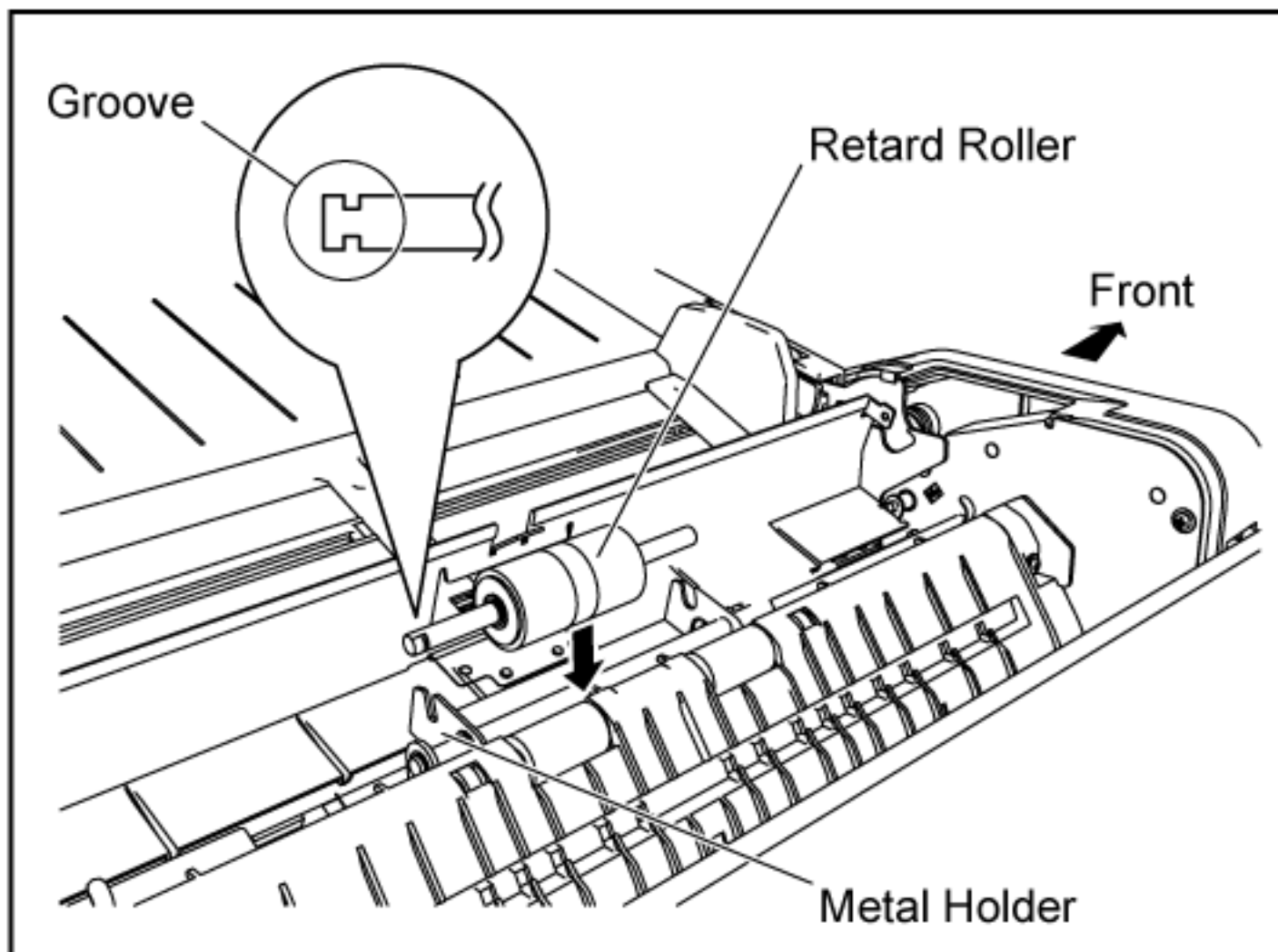


1. Install a new Retard Roller with the groove of its shaft that is located on the back side of the scanner, and match the groove to the back side of the metal holder on the scanner.

2. Close the Retard Conveyor. (See 7.2.1-(6).)
3. Close the ADF Door slowly until it clicks into place.
(See 7.2.1-(7).)

Note:

After replacing the above Paper Feed Roller Module and Retard Roller, execute Clear Counter for replacing roller with Service Utility. (See 9.3.4.)



8 DISASSEMBLY INSTRUCTIONS

[TOP](#) [PREVIOUS](#) [NEXT](#)

[8.1 Disassembly Flowchart](#)

[8.1.1 Flatbed Block](#)

[8.1.2 ADF Block](#)

[8.2 Disassembly for Flatbed Block](#)

[8.2.1 Exit Door \(Open\)](#)

[8.2.2 Document Cover](#)

[8.2.3 Front Cover](#)

[8.2.4 PANEL Board](#)

[8.2.5 Back Cover](#)

[8.2.6 DOCUMENT COVER DETECTOR Board](#)

[8.2.7 Flatbed Conveyor](#)

[8.2.8 INTERFACE Board](#)

[8.2.9 Side Cover \(L\)](#)

[8.2.10 Side Cover \(R\)](#)

[8.2.11 Flatbed Glass](#)

[8.2.12 CARRIAGE HOME DETECTOR Board](#)

[8.2.13 Shield Plates \(A, B\)](#)

[8.2.14 CONTROL Board](#)

[8.2.15 DRIVE Board](#)

[8.2.16 Carriage Motor](#)

[8.2.17 Power Box & Cover](#)

[8.2.18 FAN](#)

[8.2.19 POWER Board](#)

[8.2.20 Inverter Cover](#)

[8.2.21 CIS \(F\)](#)

[8.2.22 CARRIAGE RELAY Board](#)

[8.2.23 Lamp Drive \(F\) Board](#)

[8.3 Disassembly for ADF Block](#)

[8.3.1 Imprinter Door](#)

[8.3.2 Double Feed Detector \(R\)](#)

[8.3.3 OUTER CONVEYOR RELAY Board](#)

[8.3.4 Paper Feed Roller Module](#)

[8.3.5 Retard Roller](#)

[8.3.6 Top Cover](#)

[8.3.7 WAITING SENSOR Board](#)

[8.3.8 Hopper Tray](#)

[8.3.9 Hopper](#)

[8.3.10 SIZE DETECTOR Board](#)

[8.3.11 Paper Sensor](#)

8.3.12 ADF Cover (F)

8.3.13 SENSOR RELAY Board

8.3.14 ADF Cover (B)

8.3.15 ADF Door Switch

8.3.16 POWER RELAY Board

8.3.17 Conveyor 1

8.3.18 Drive Belts 1, 2, 3

8.3.19 Drive Rollers 1, 2, 3

8.3.20 Double Feed Detector (G)

8.3.21 STARTING SENSOR Board

8.3.22 ADF Glass (B)

8.3.23 Conveyor 2

8.3.24 Drive Roller 4

8.3.25 Hopper Front Cover

8.3.26 Hopper Base

8.3.27 HOPPER HOME DETECTOR Board

8.3.28 Retard Conveyor

8.3.29 HOPPER RELAY Board

8.3.30 Exit Conveyor

8.3.31 Exit Roller

[8.3.32 ENDING SENSOR Board](#)

[8.3.33 Exit Door Switch](#)

[8.3.34 CIS \(B\) & CIS RELAY Board](#)

[8.3.35 Lamp Drive \(B\) Board](#)

[8.3.36 Paper Feed Motor](#)

[8.3.37 Conveyor Motor](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.1 Disassembly Flowchart

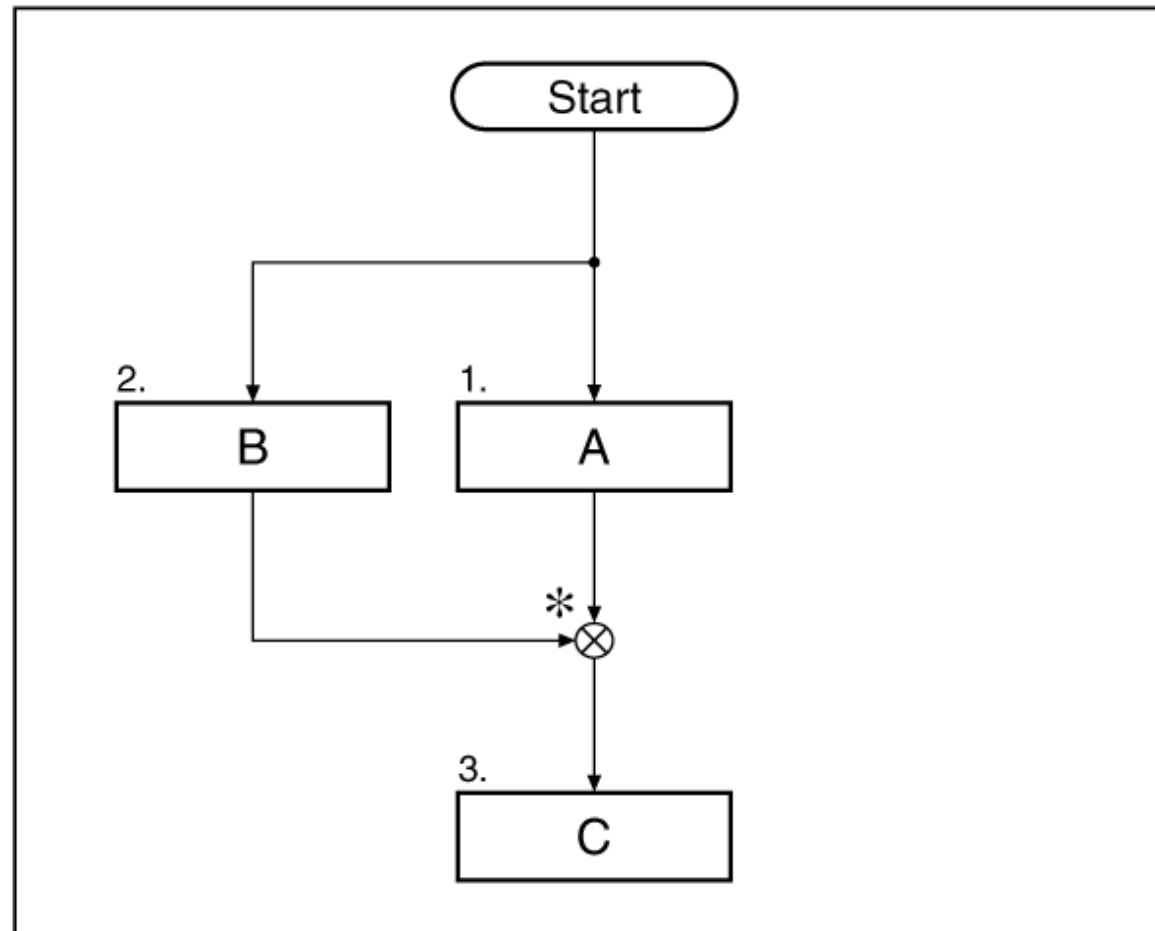
[TOP](#) [PREVIOUS](#) [NEXT](#)

The flowchart indicates disassembly items of the Exterior, Mechanical parts, Unit Components, Circuit Board assemblies.

When reassembling, perform the steps in the reverse order unless noted in Reassembling Notes.

Note:

[How to check the disassembly flowchart](#)



* This sample flowchart means the procedures 1 and 2 are required before the procedure 3, when disassembling C.

[8.1.1 Flatbed Block](#)

[8.1.2 ADF Block](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.1.1 Flatbed Block

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.1.2 ADF Block

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2 Disassembly for Flatbed Block

[TOP](#) [PREVIOUS](#) [NEXT](#)

[8.2.1 Exit Door \(Open\)](#)

[8.2.2 Document Cover](#)

[8.2.3 Front Cover](#)

[8.2.4 PANEL Board](#)

[8.2.5 Back Cover](#)

[8.2.6 DOCUMENT COVER DETECTOR Board](#)

[8.2.7 Flatbed Conveyor](#)

[8.2.8 INTERFACE Board](#)

[8.2.9 Side Cover \(L\)](#)

[8.2.10 Side Cover \(R\)](#)

[8.2.11 Flatbed Glass](#)

[8.2.12 CARRIAGE HOME DETECTOR Board](#)

[8.2.13 Shield Plates \(A, B\)](#)

[8.2.14 CONTROL Board](#)

[8.2.15 DRIVE Board](#)

[8.2.16 Carriage Motor](#)

[8.2.17 Power Box & Cover](#)

[8.2.18 FAN](#)

[8.2.19 POWER Board](#)

[8.2.20 Inverter Cover](#)

[8.2.21 CIS \(F\)](#)

[8.2.22 CARRIAGE RELAY Board](#)

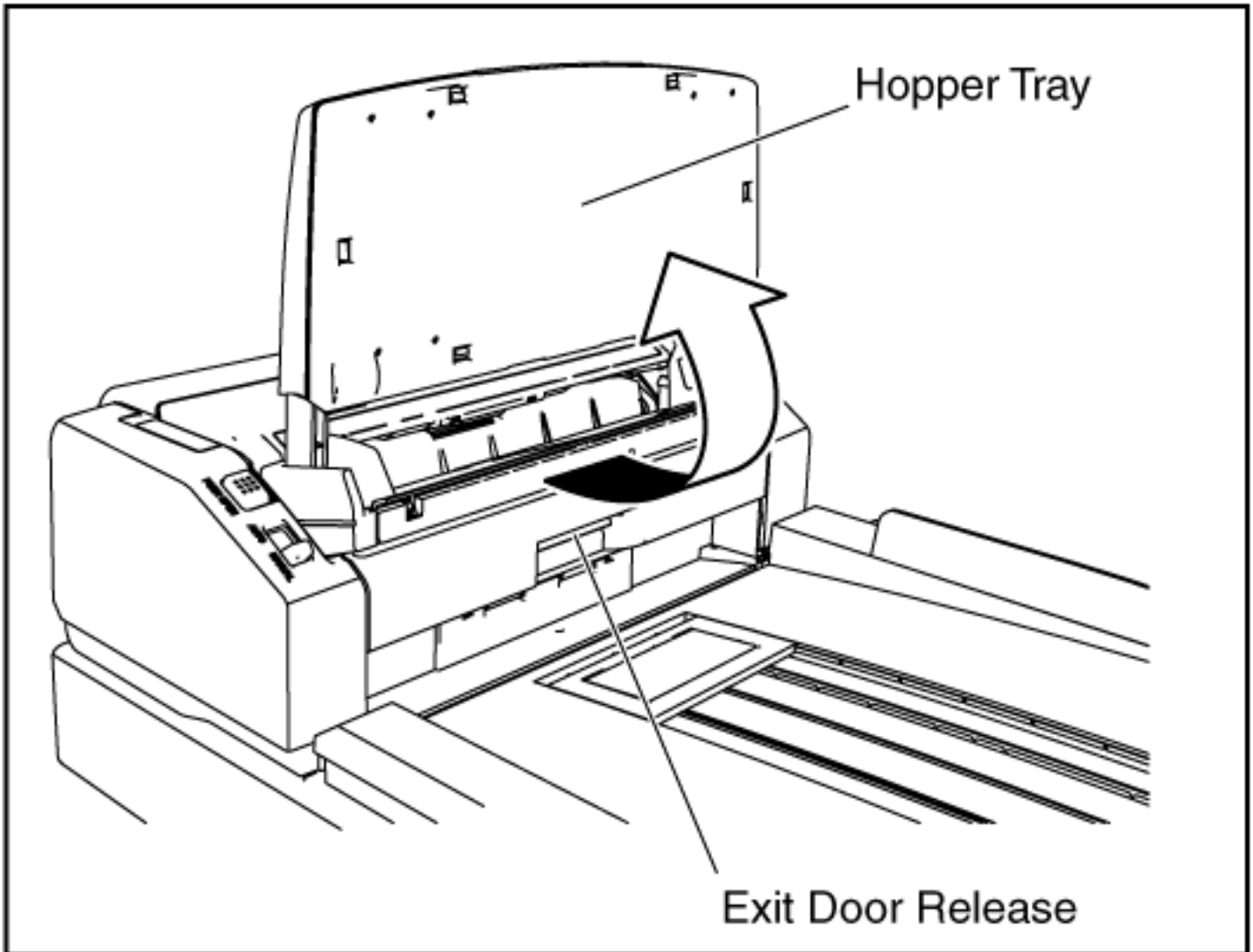
[8.2.23 Lamp Drive \(F\) Board](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.1 Exit Door (Open)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the door.

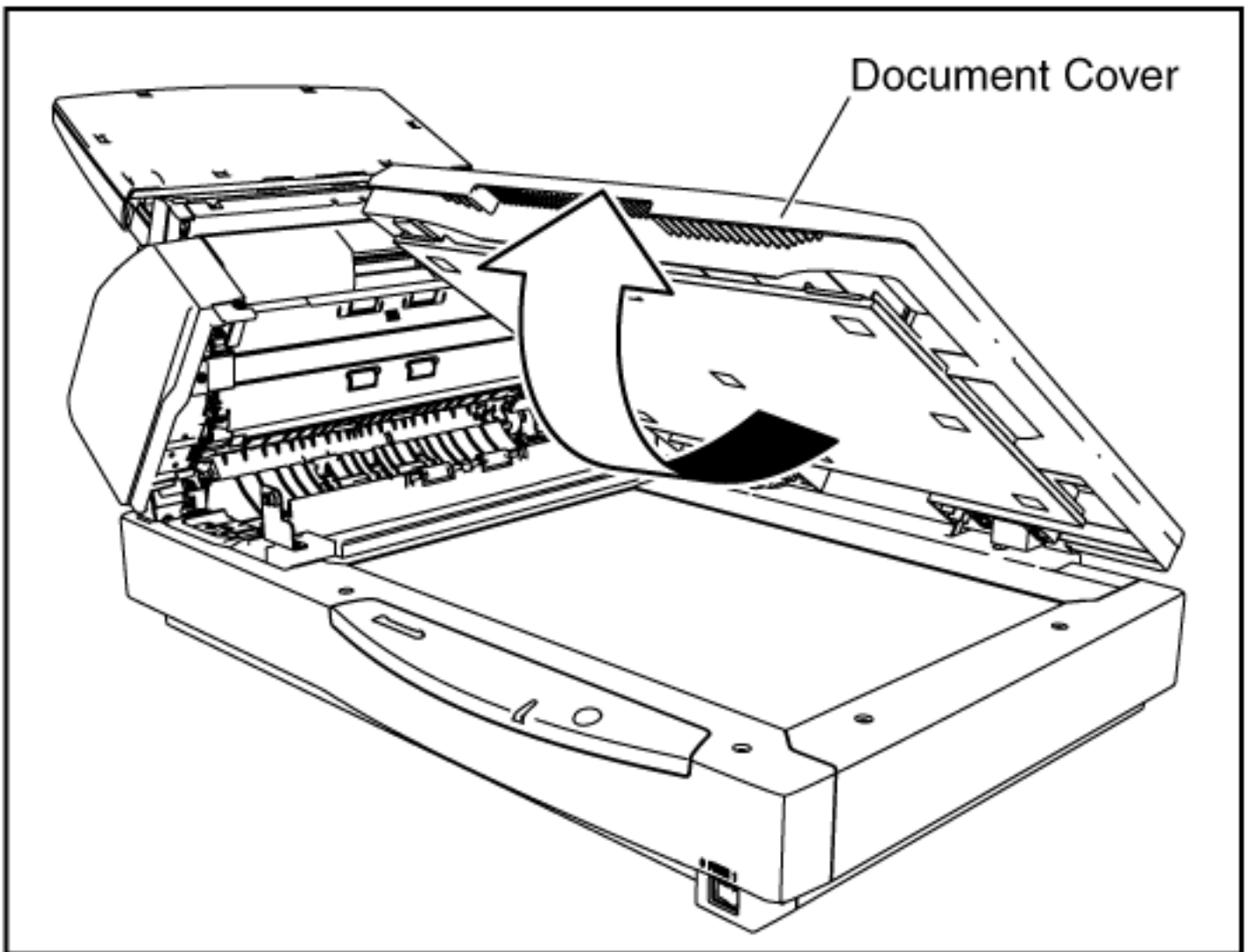


[TOP](#) [PREVIOUS](#) [NEXT](#)

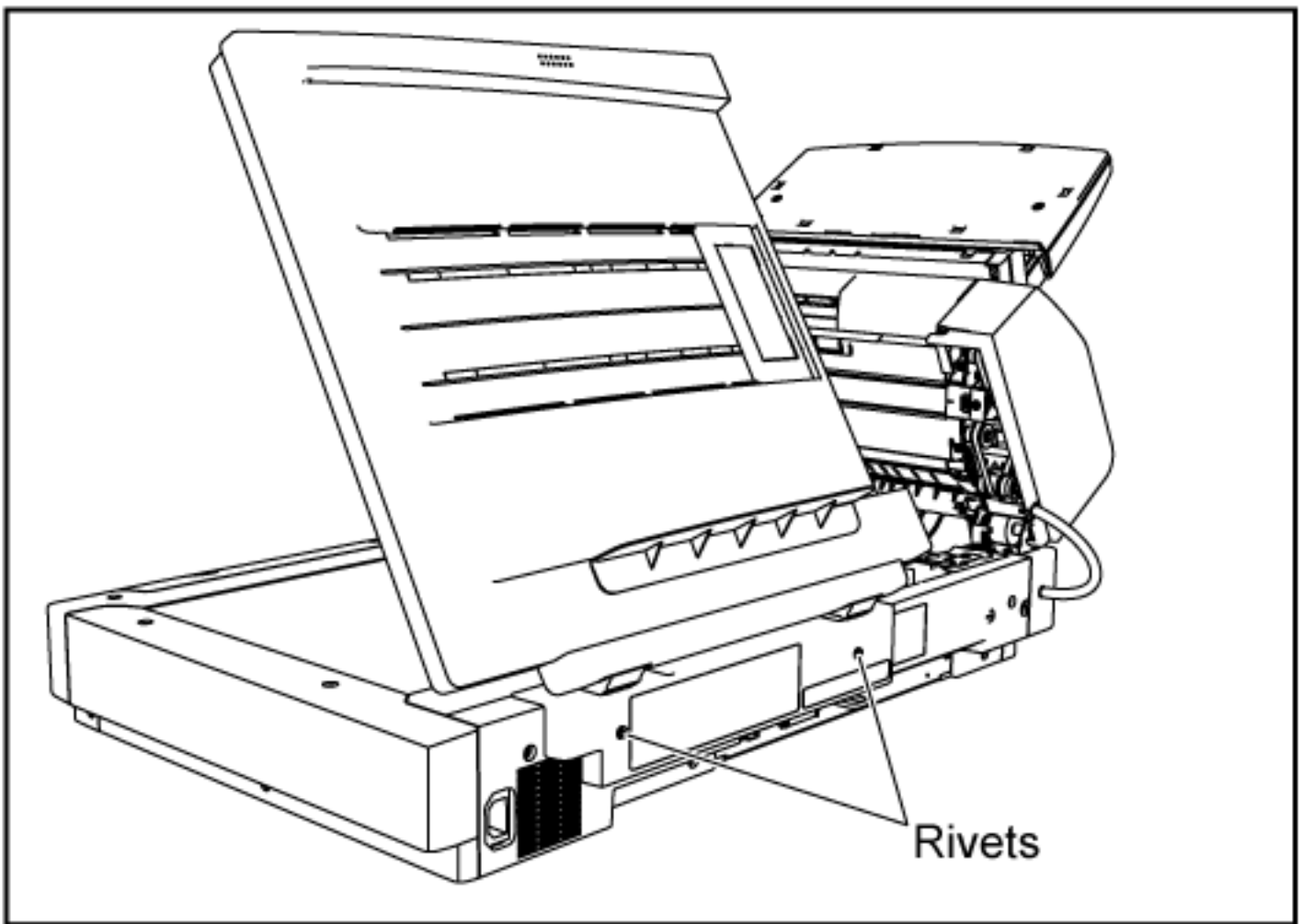
8.2.2 Document Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

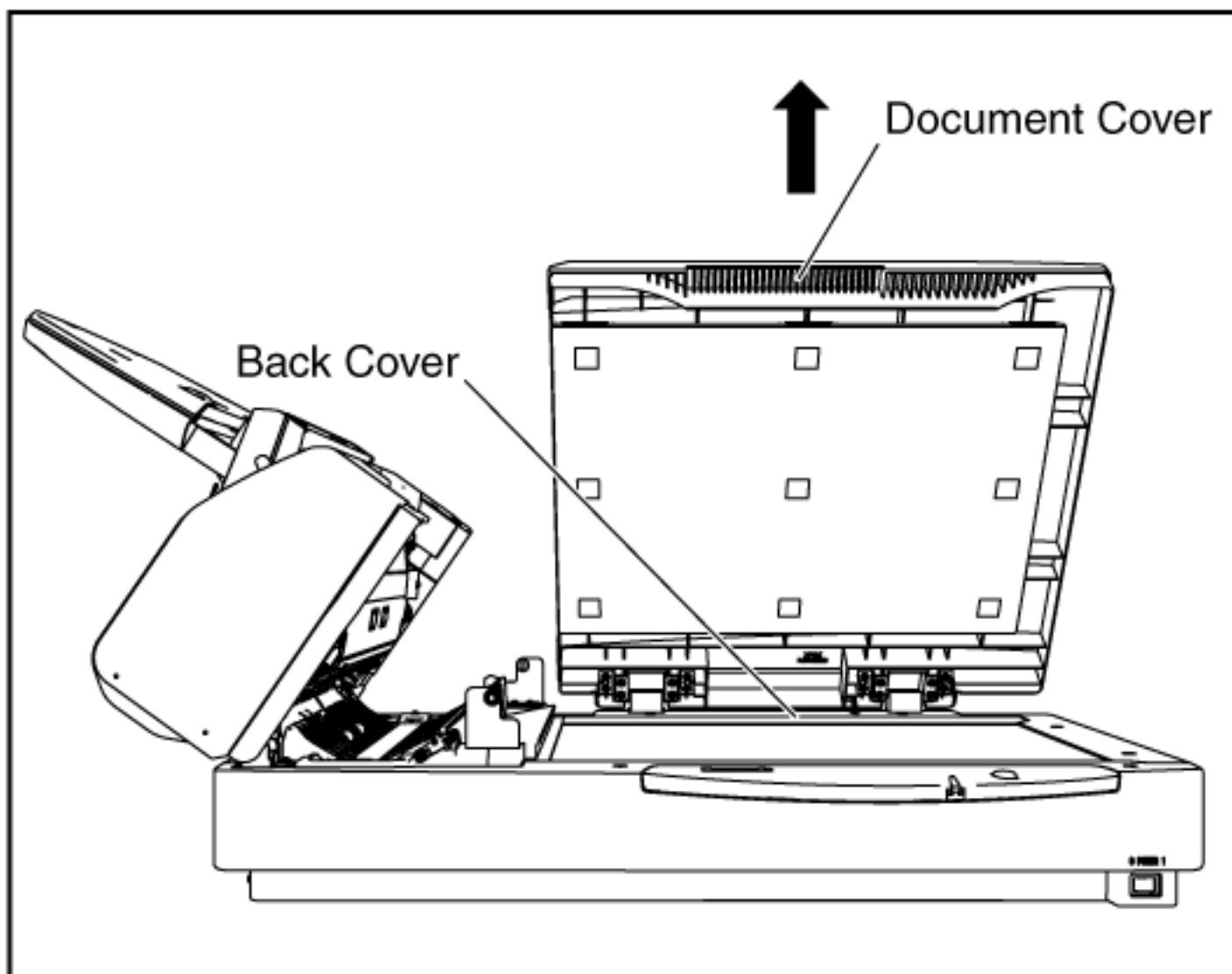
1. Open the Exit Door. (See 8.2.1.)
2. Open the Document Cover.



1. Remove the 2 rivets to release the Document Cover.



1. Pull up the Document Cover in the direction of the arrow to remove it from the Back Cover.

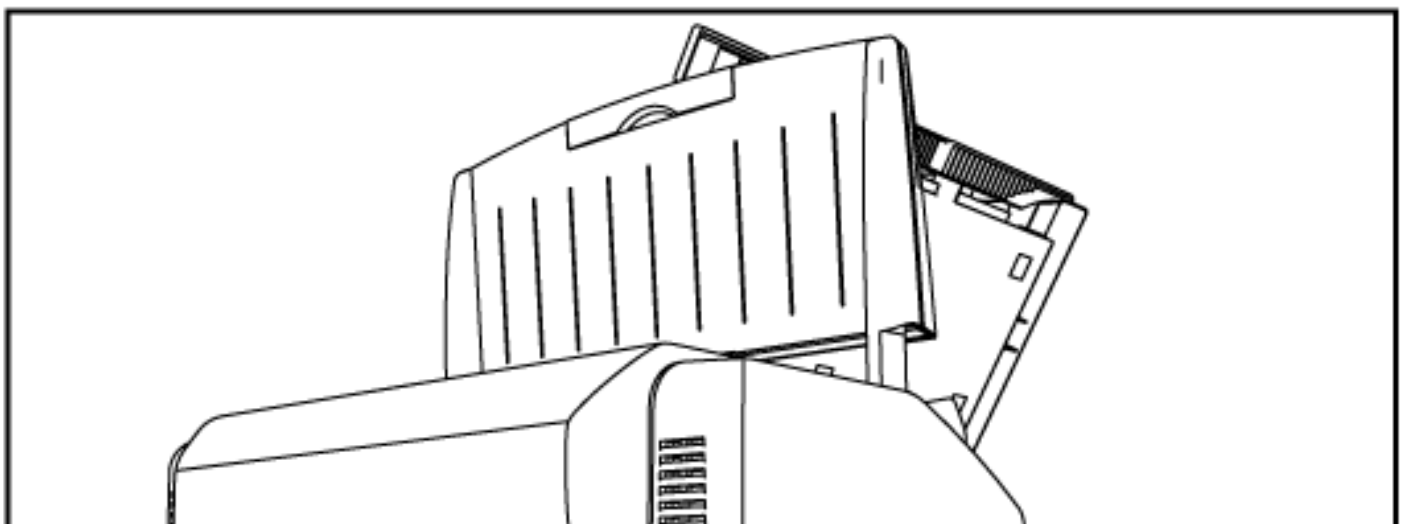
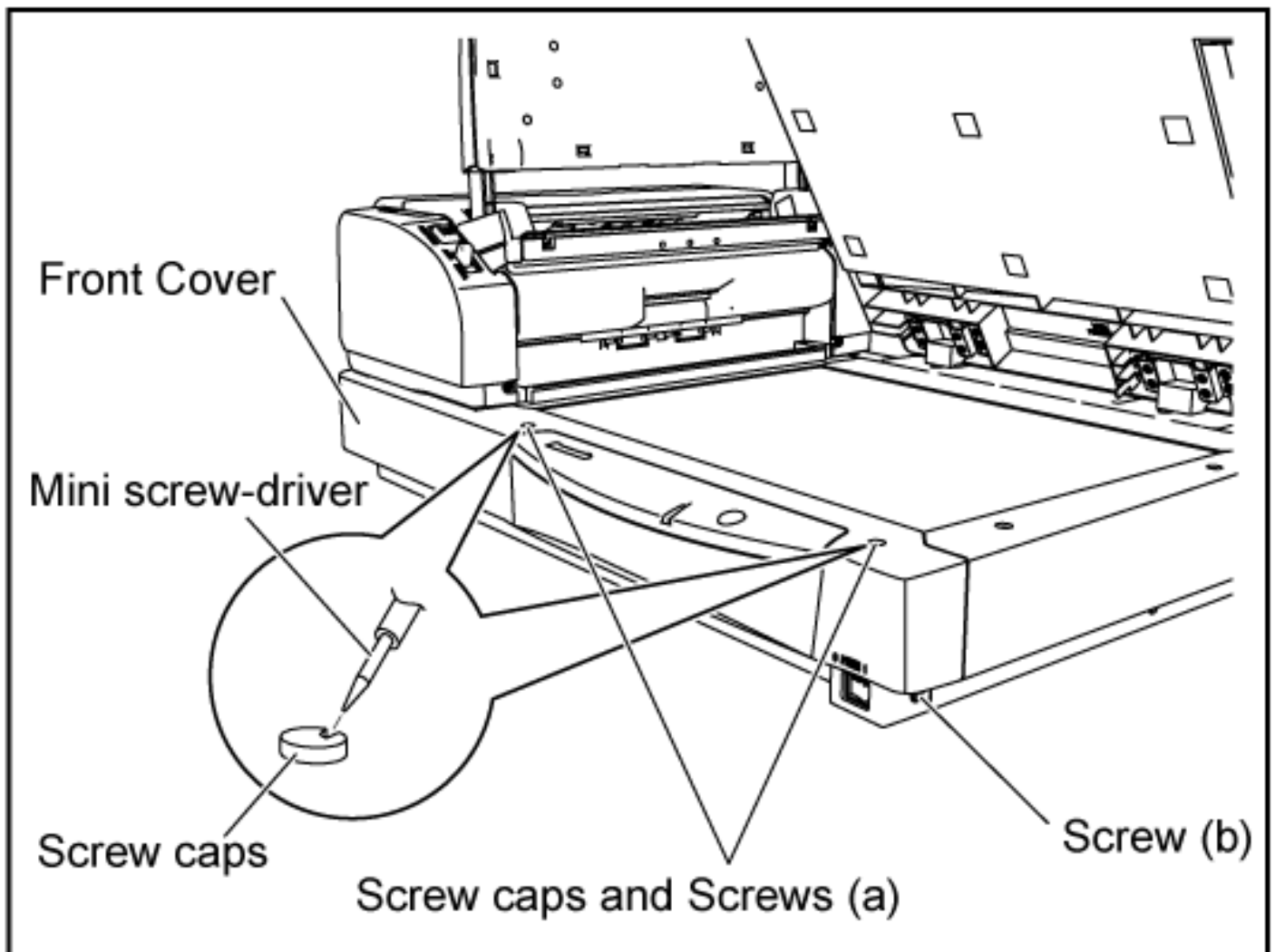


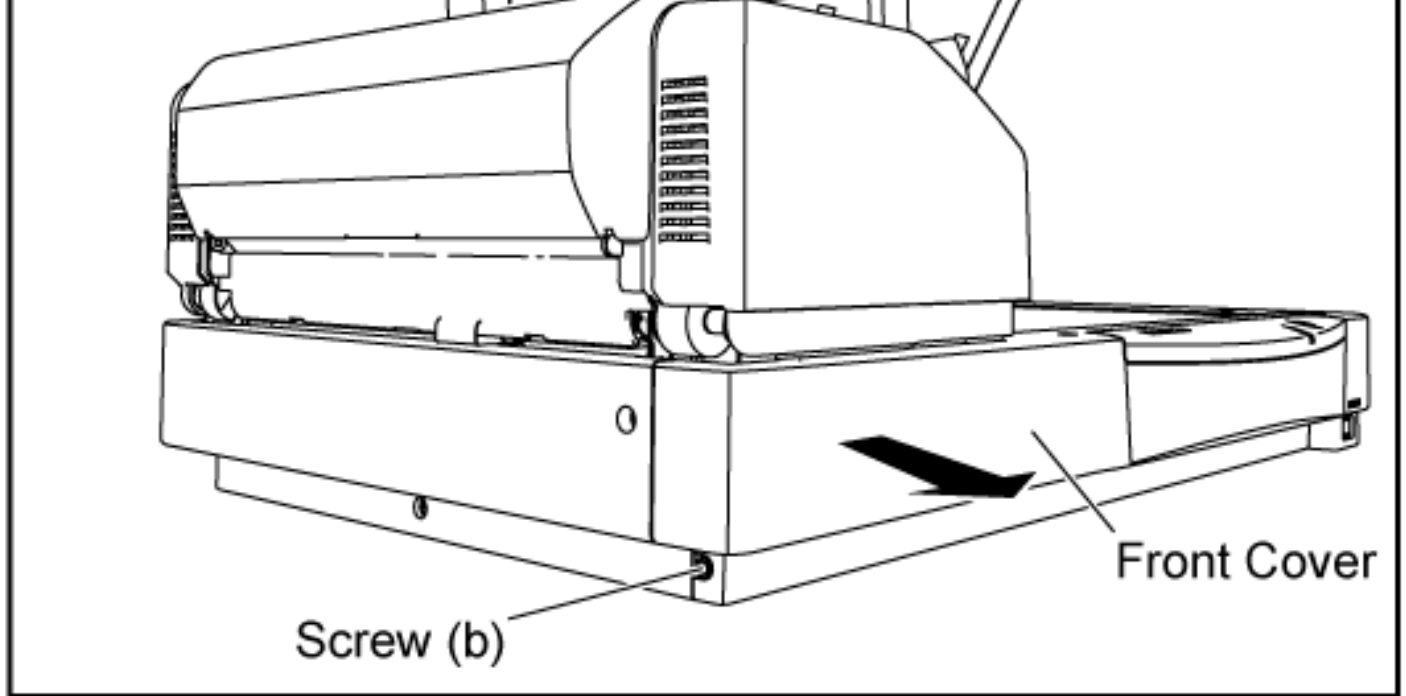
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.3 Front Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Open or remove the Document Cover. (See 8.2.2.)
2. Remove the 2 screw caps, hanging them with the mini screw-driver.
3. Remove the 2 screws (a) and 2 screws (b), and pull out the Front Cover in the direction of the arrow.

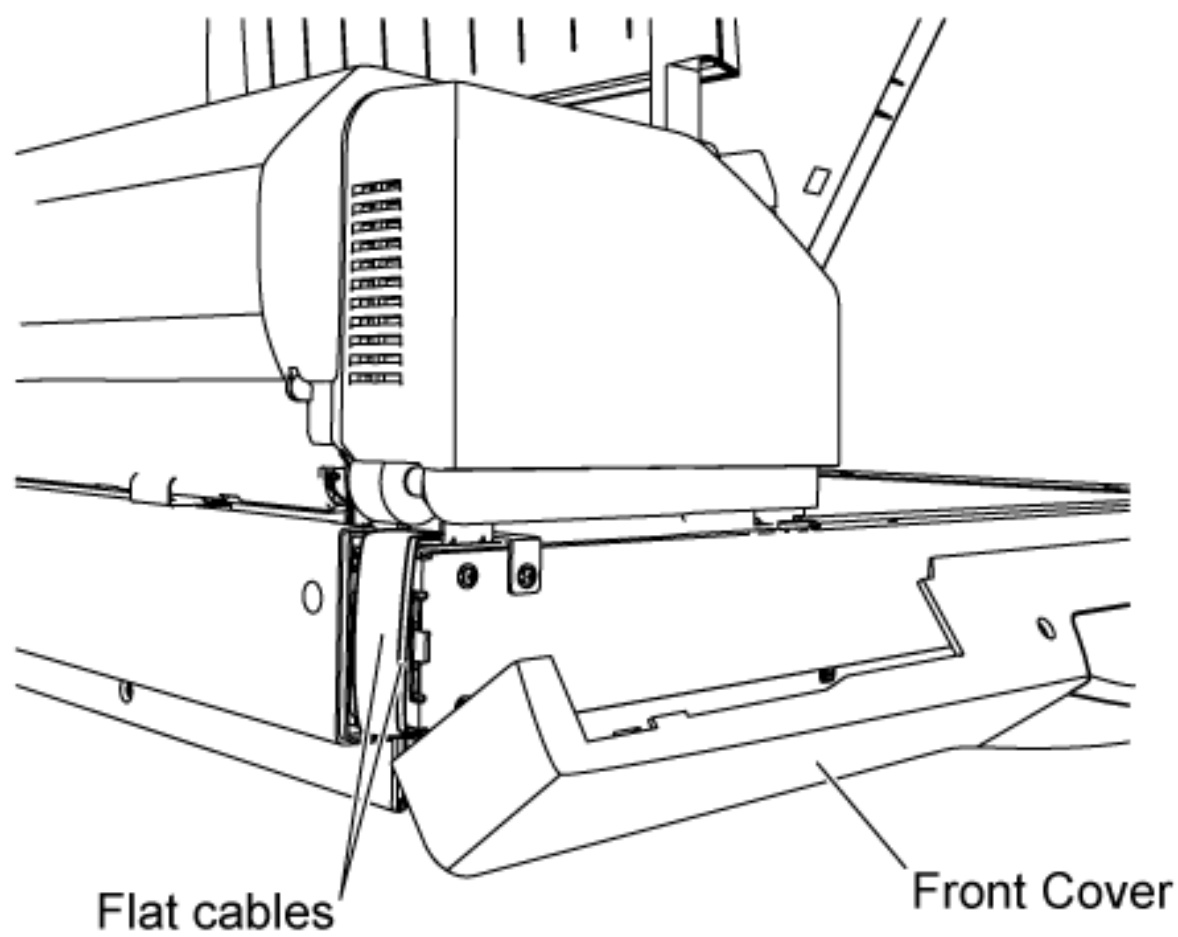


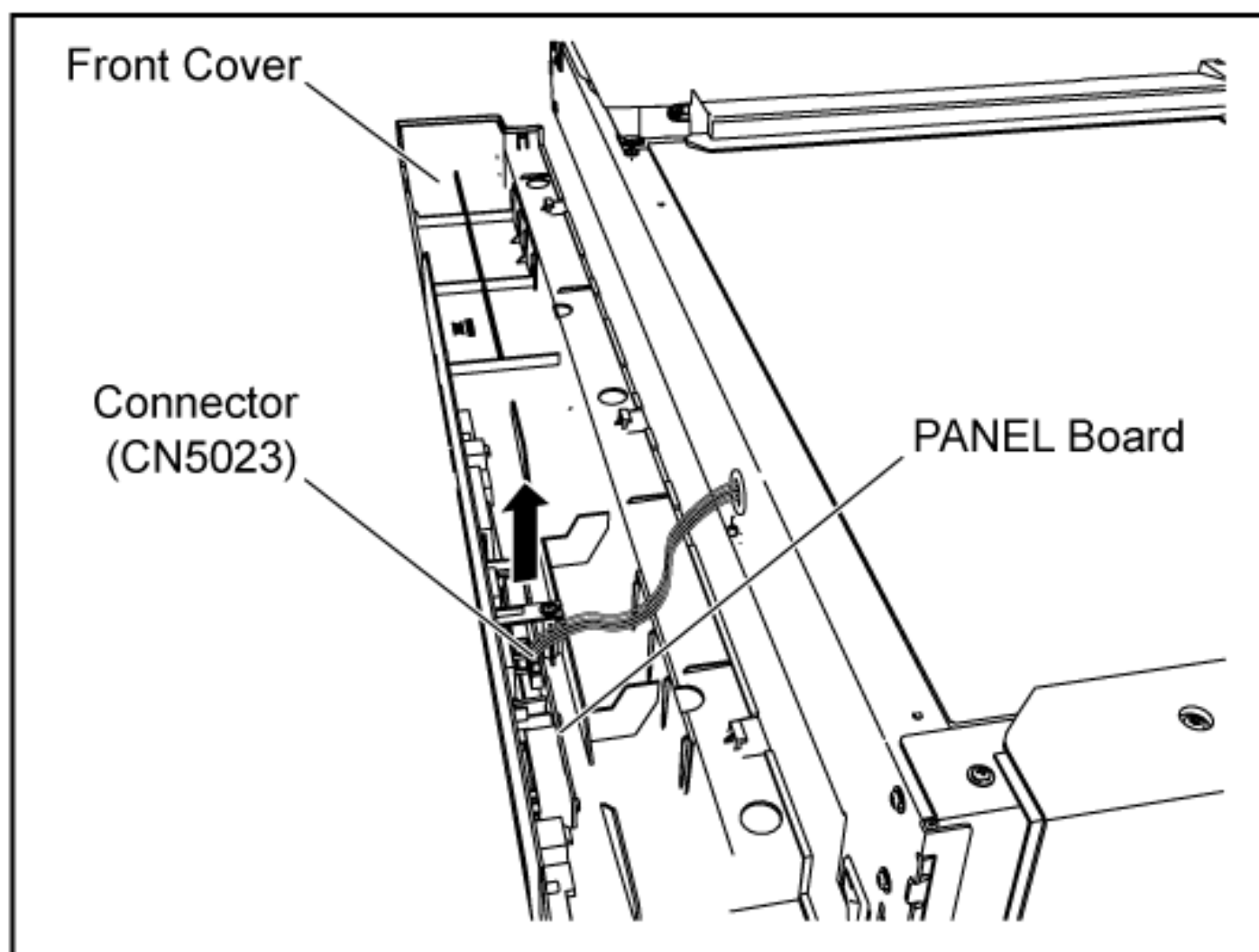


1. Remove the 1 connector (CN5023) to the PANEL Board to separate the Front Cover from the scanner in the direction of the arrow.

Reassembling Note:

When reassembling the Front Cover, make sure that the flat cables are covered properly, so that they are not caught by the cover.



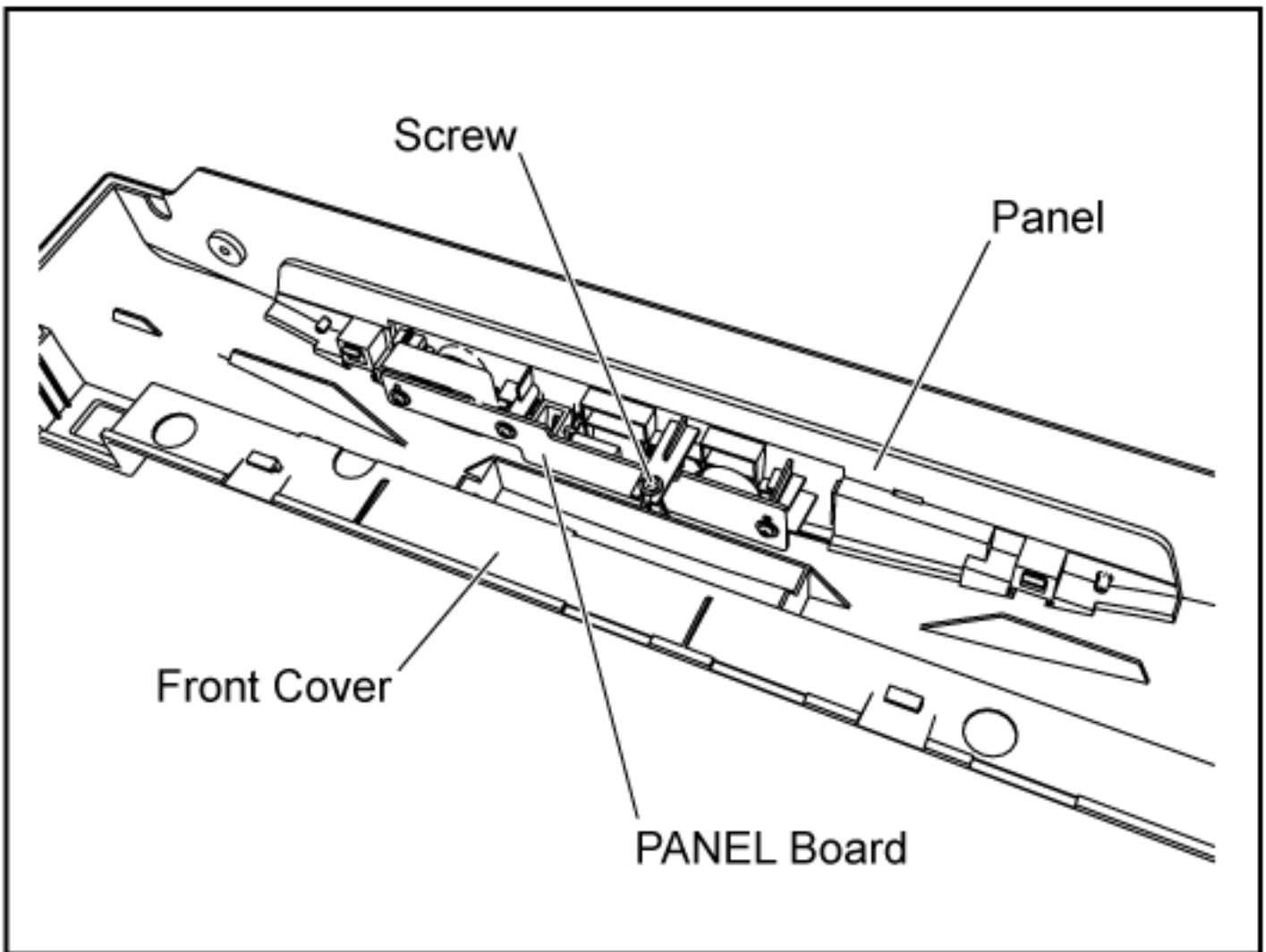


[TOP](#) [PREVIOUS](#) [NEXT](#)

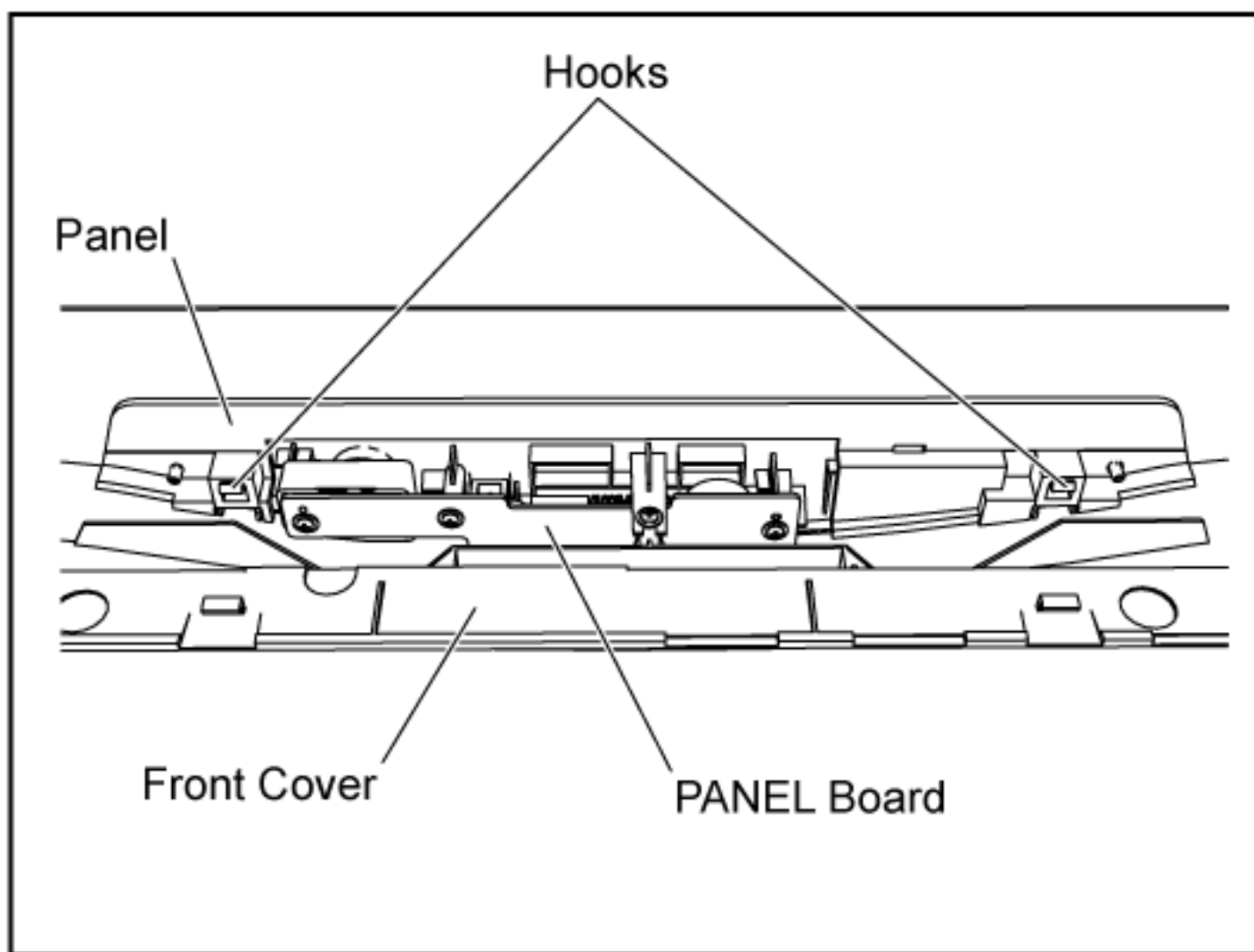
8.2.4 PANEL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

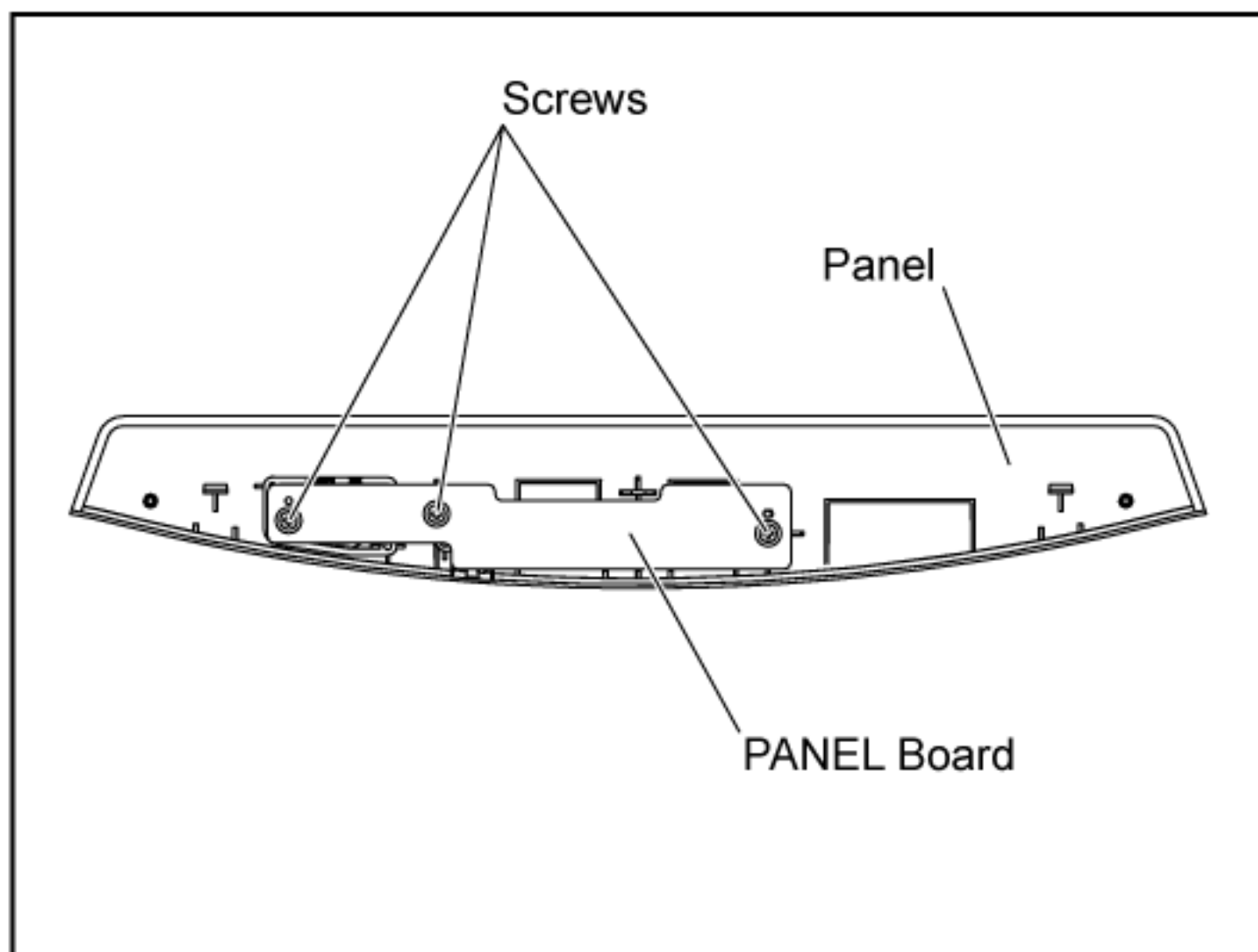
1. Remove the Front Cover. (See 8.2.3.)
2. Remove the 1 screw.



1. Release the 2 hooks to separate the PANEL Board with the Panel from the Front Cover.



1. Remove the 3 screws to separate the board from the panel.

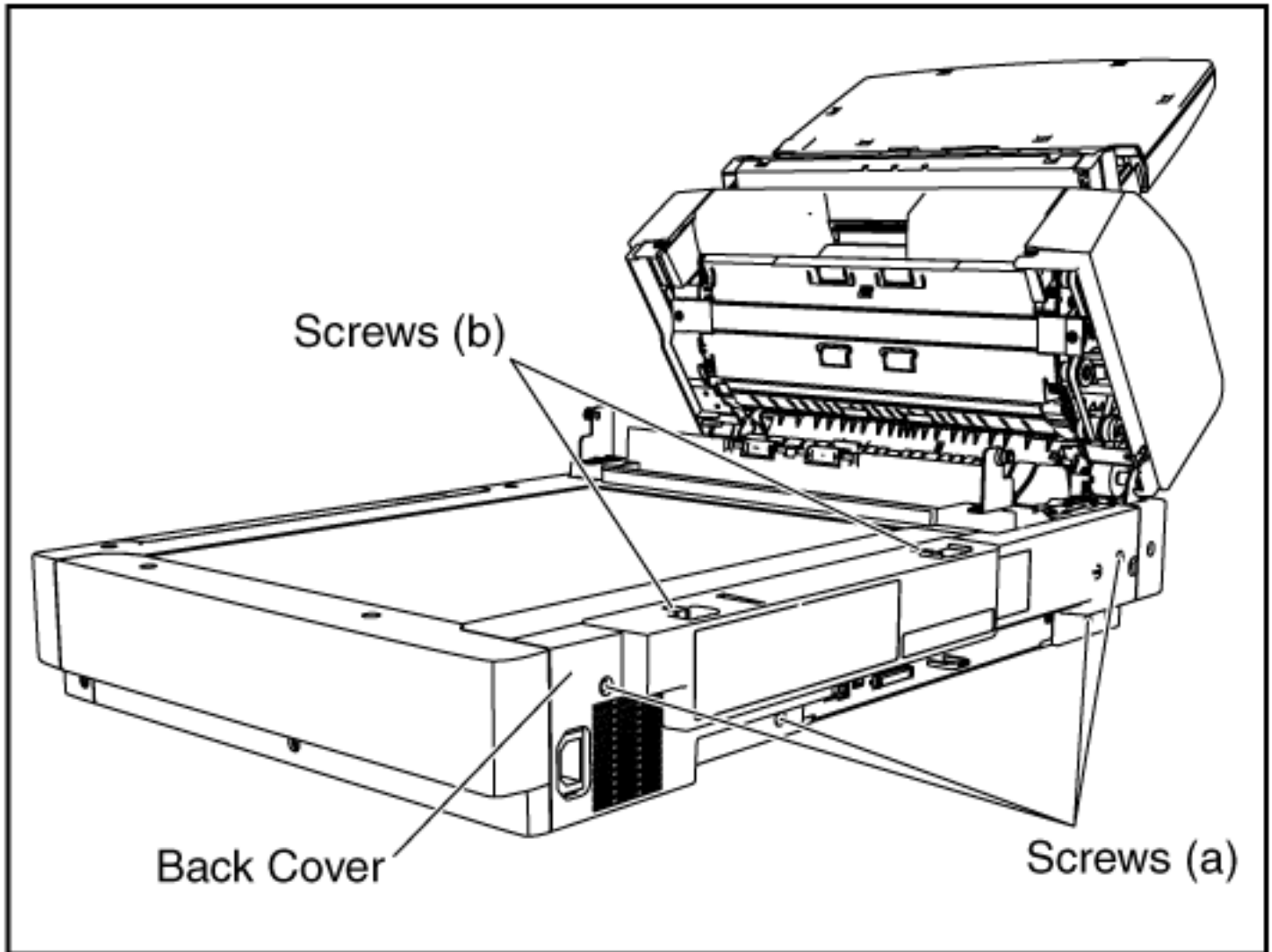


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.5 Back Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Document Cover. (See 8.2.2.)
2. Remove the 4 screws (a) and 2 screws (b) to separate the Back Cover from the scanner.

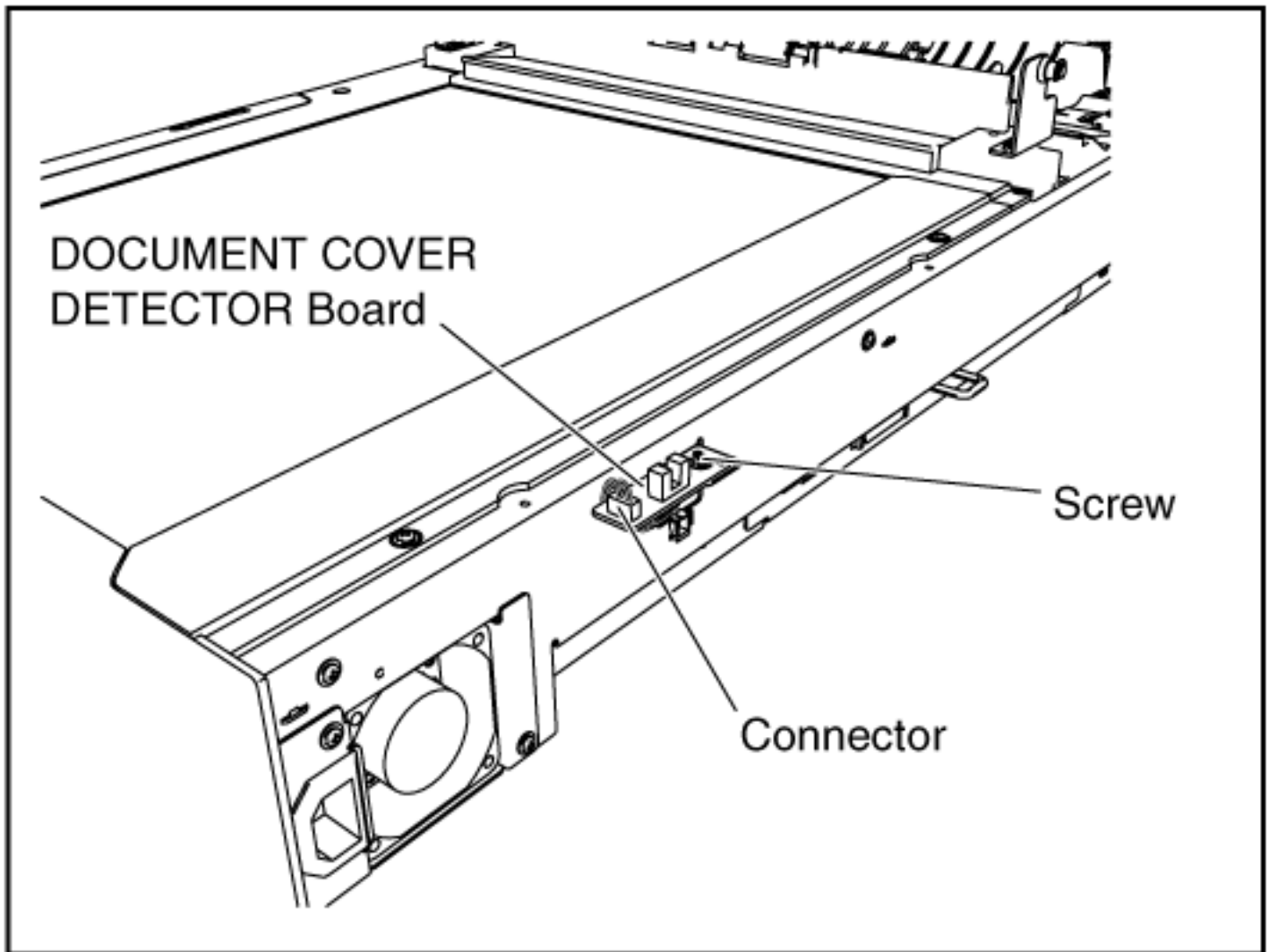


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.6 DOCUMENT COVER DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Back Cover. (See 8.2.5.)
2. Remove the 1 screw and 1 connector to release the DOCUMENT COVER DETECTOR Board.



[TOP](#) [PREVIOUS](#) [NEXT](#)

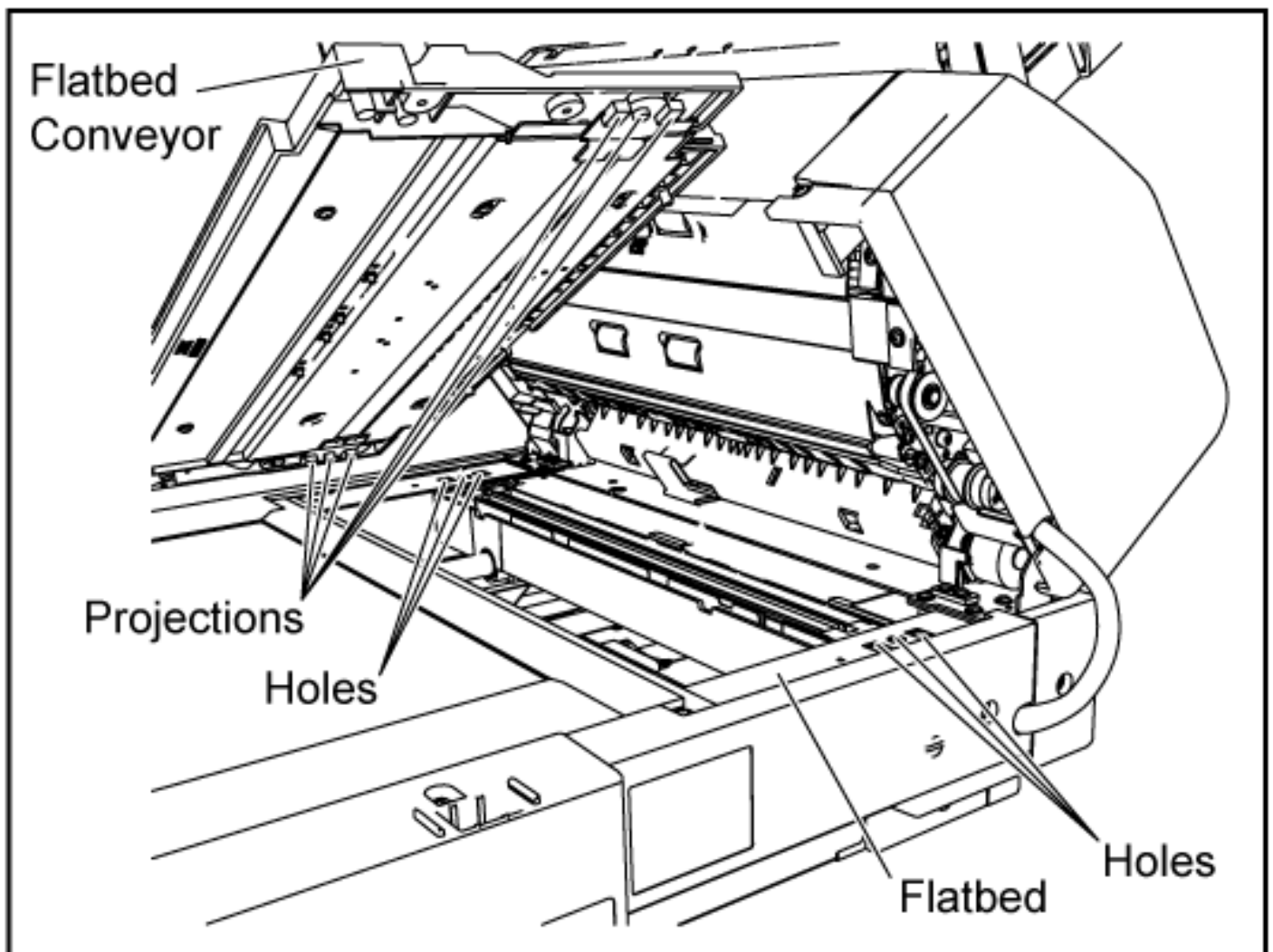
8.2.7 Flatbed Conveyor

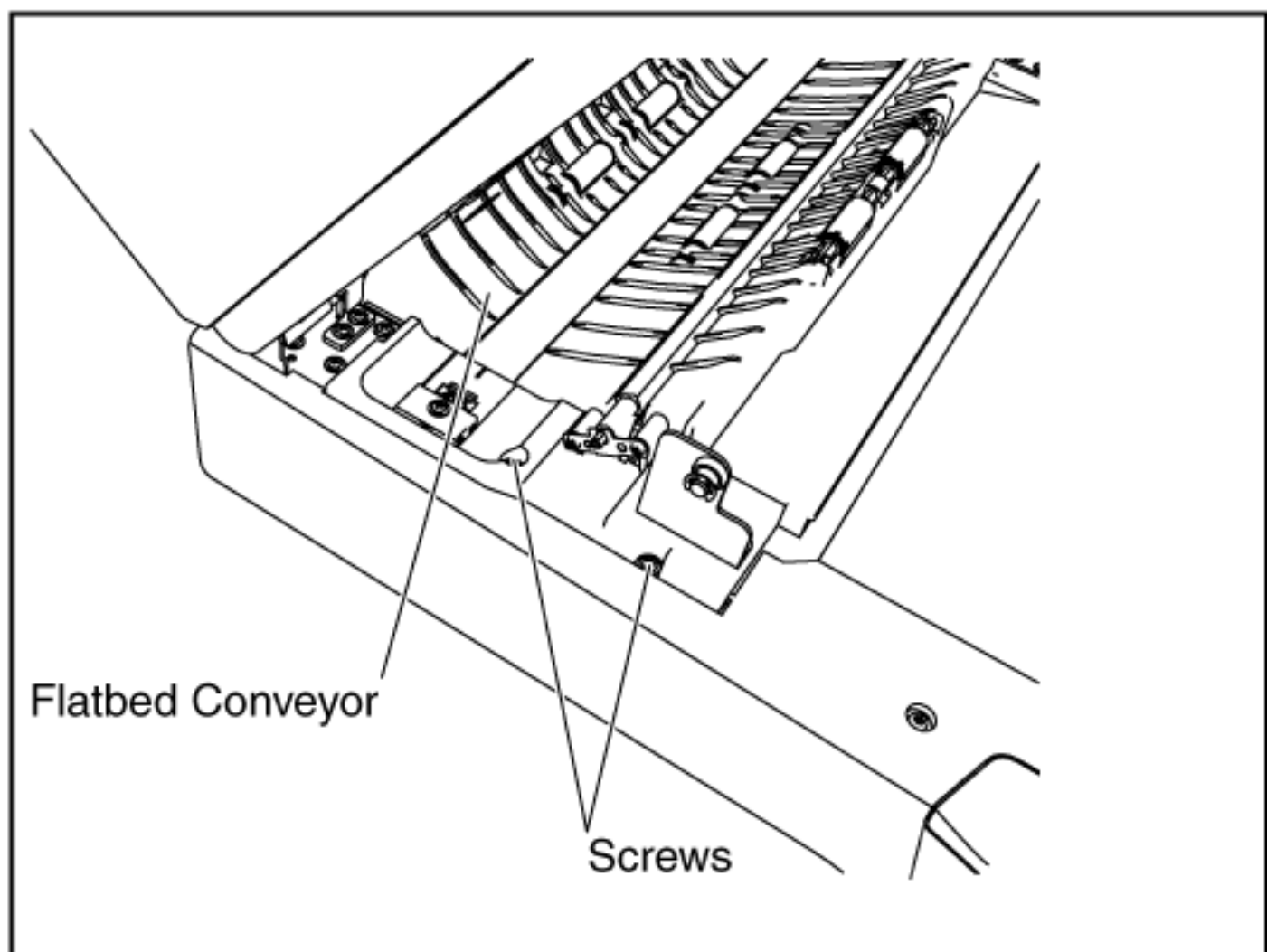
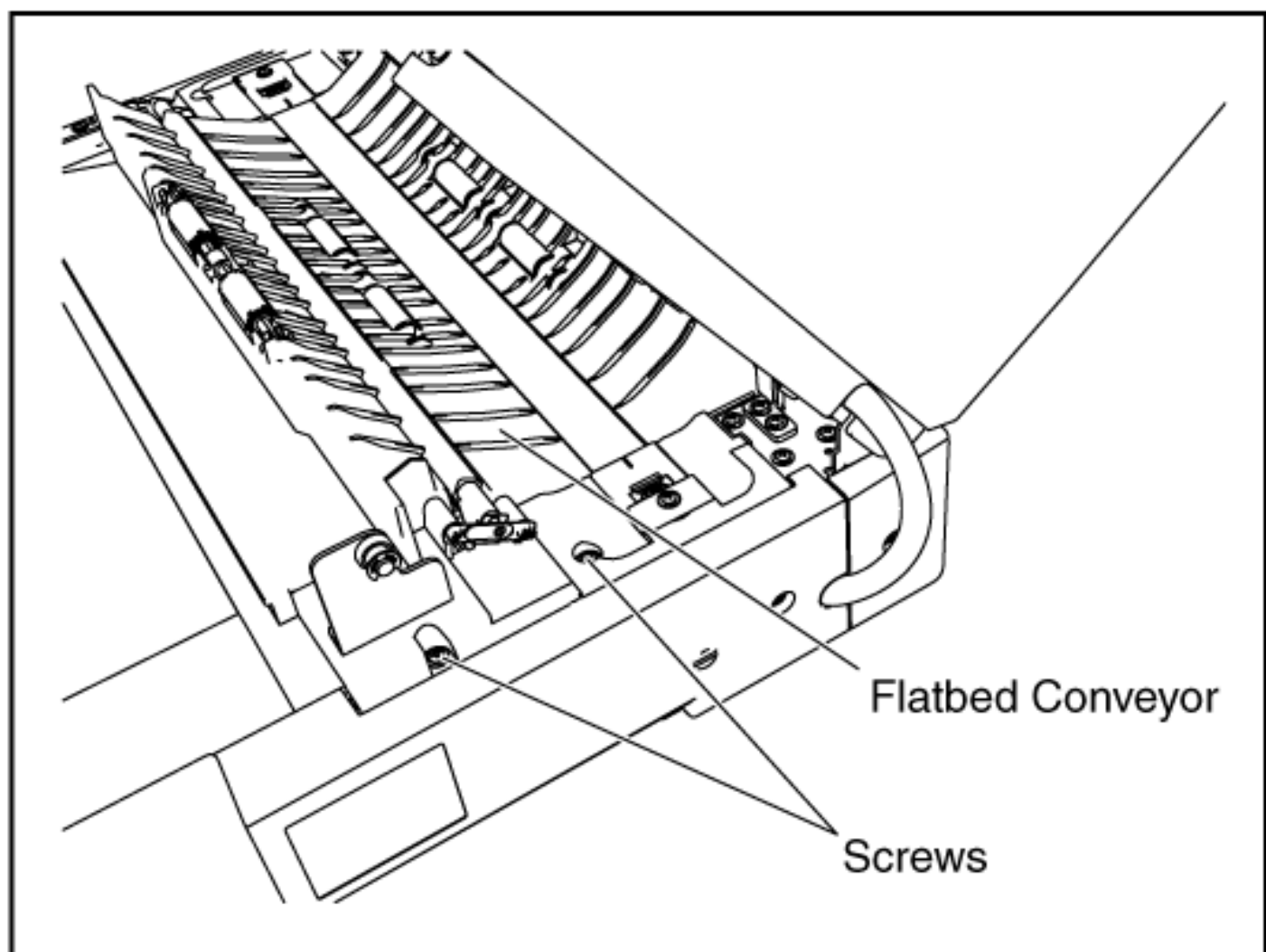
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Document Cover. (See 8.2.2.)
2. Remove the 4 screws and lift the Flatbed Conveyor.

Reassembling Note:

Be sure to match projections of the conveyor with the holes of the flatbed, and attach it to the scanner.





Screws



[TOP](#) [PREVIOUS](#) [NEXT](#)

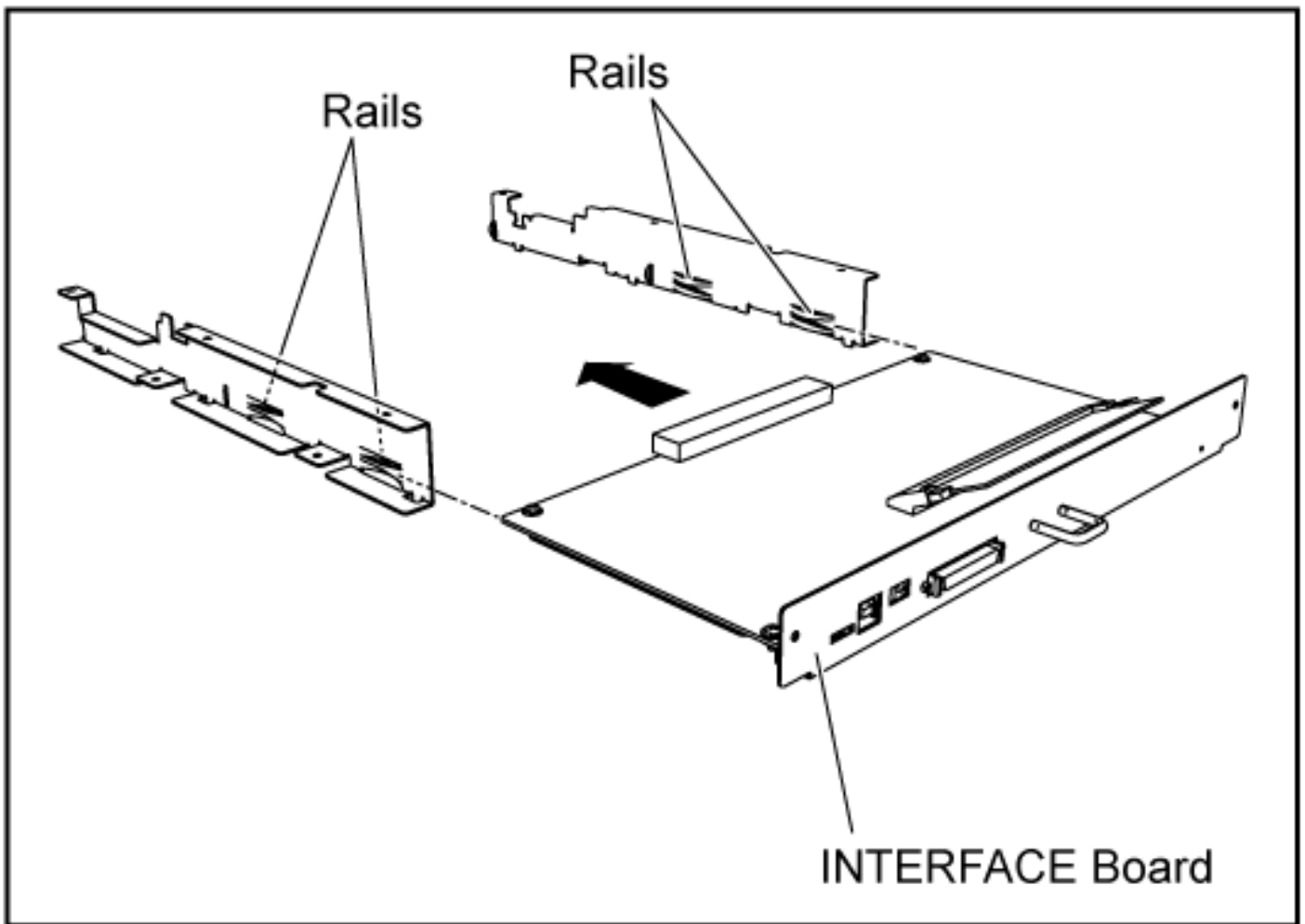
8.2.8 INTERFACE Board

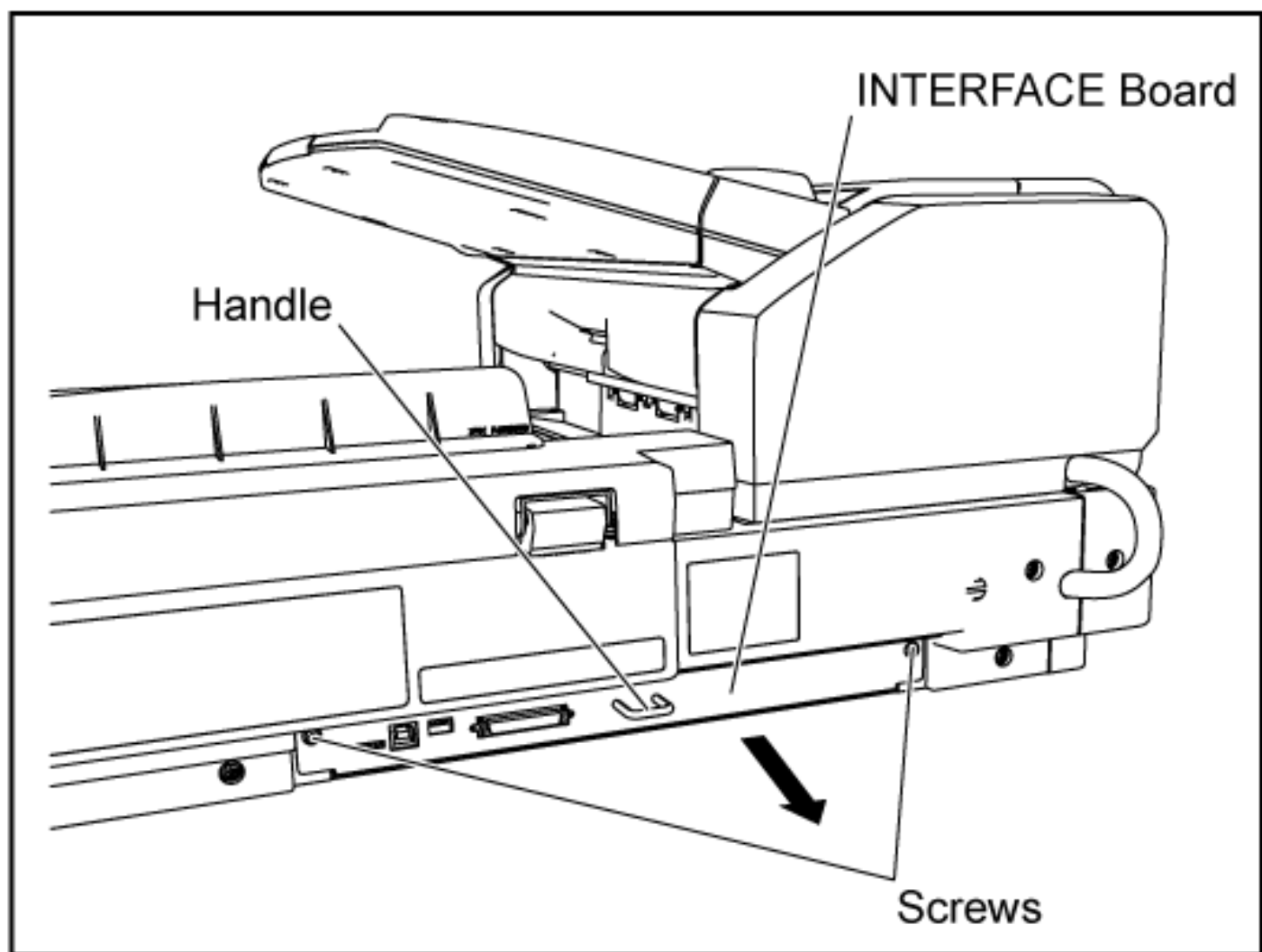
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the 2 screws.
2. Pull the handle in the direction of the arrow to remove the INTERFACE Board.

Reassembling Note:

Insert the INTERFACE Board into the scanner unit along the rails and push it in firmly.



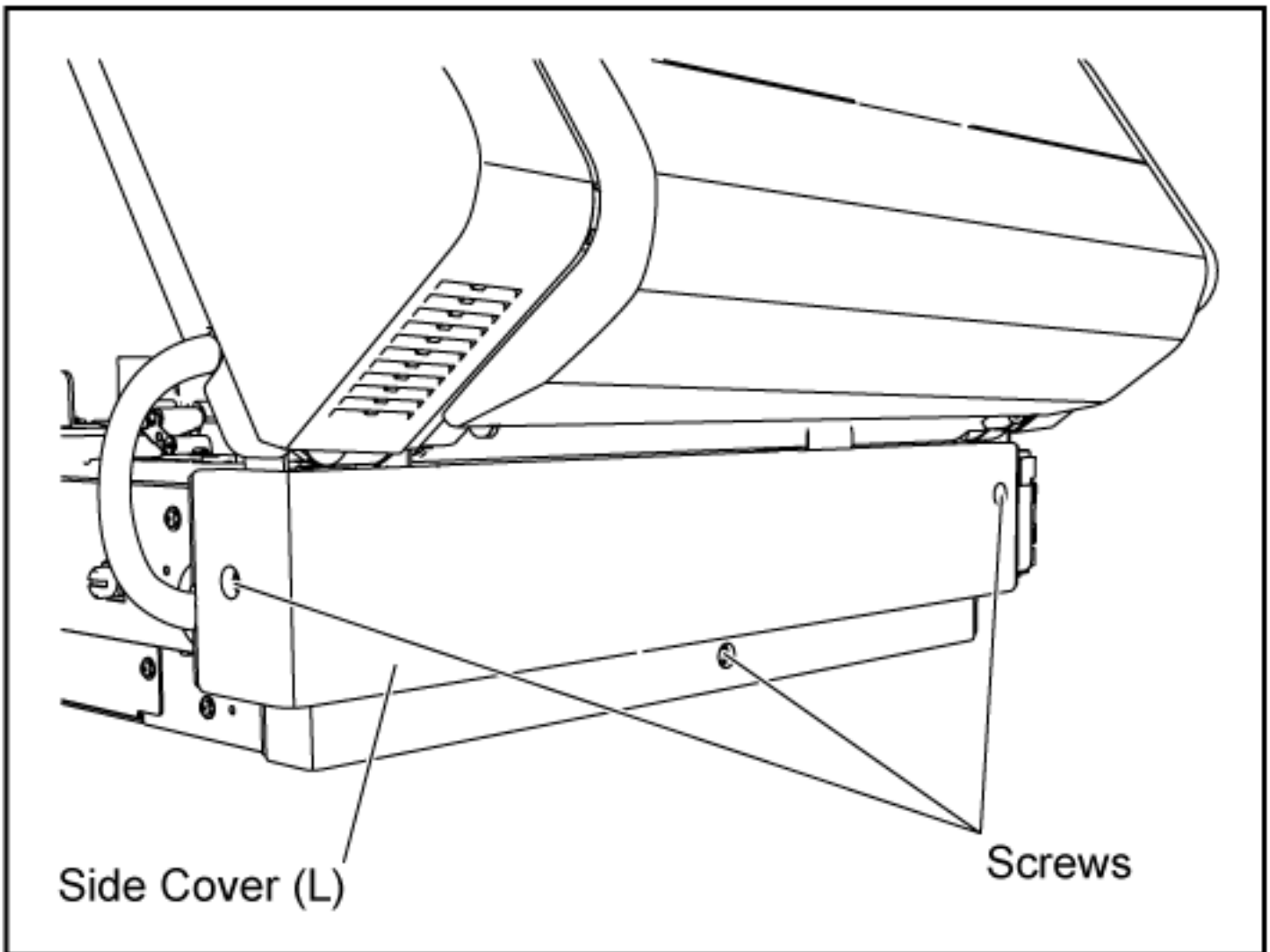


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.9 Side Cover (L)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Front Cover. (See 8.2.3.)
2. Remove the Back Cover. (See 8.2.5.)
3. Remove the 3 screws to separate the Side Cover (L) from the scanner.

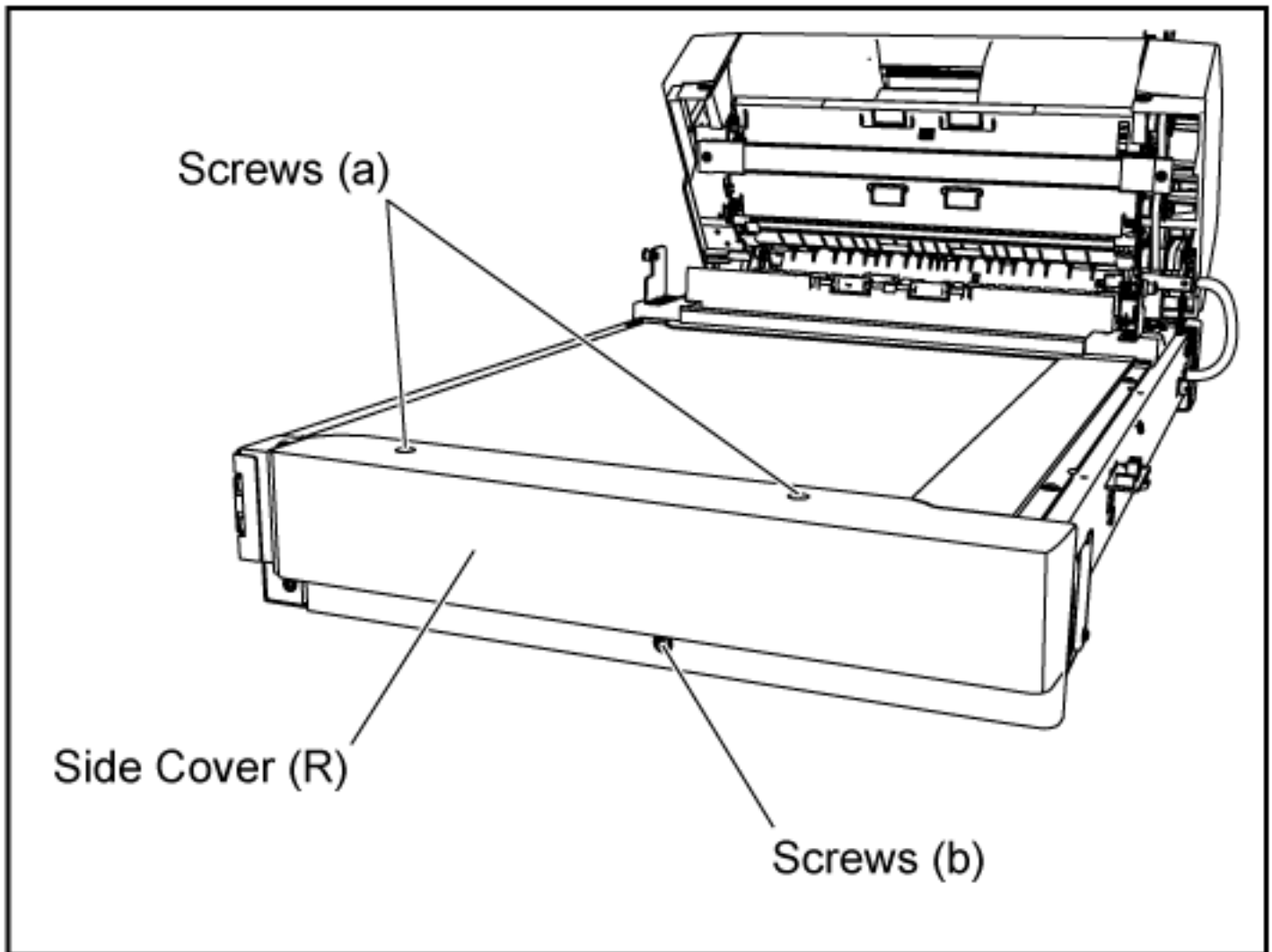


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.10 Side Cover (R)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Front Cover. (See 8.2.3.)
2. Remove the Back Cover. (See 8.2.5.)
3. Remove the 2 screws (a) and 1 screw (b) to release the Side Cover (R) from the scanner.



[TOP](#) [PREVIOUS](#) [NEXT](#)

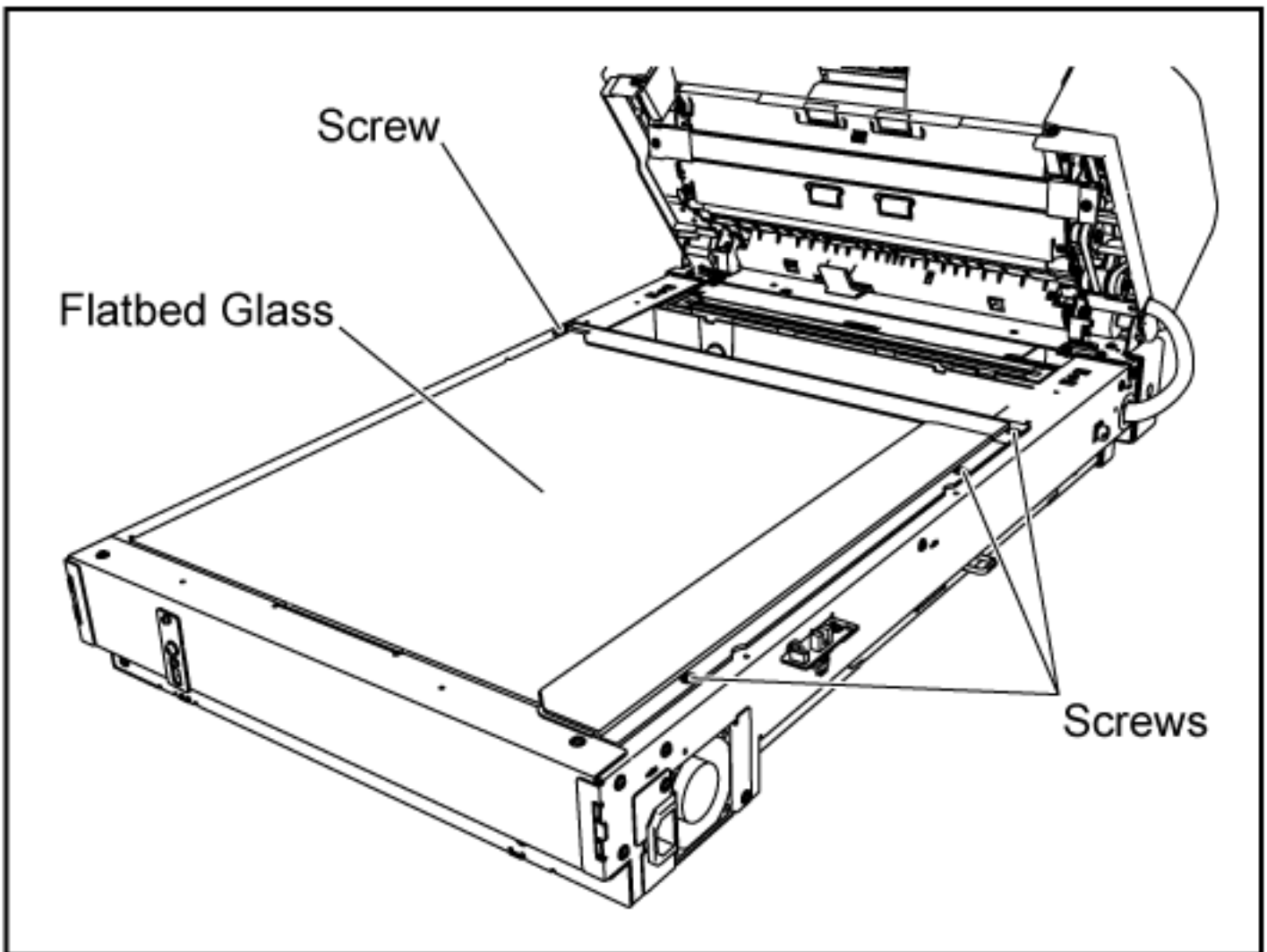
8.2.11 Flatbed Glass

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Flatbed Conveyor. (See 8.2.7.)
2. Remove the Side Cover (R). (See 8.2.10.)
3. Remove the 4 screws and lift the Flatbed Glass to remove it.

Reassembling Note:

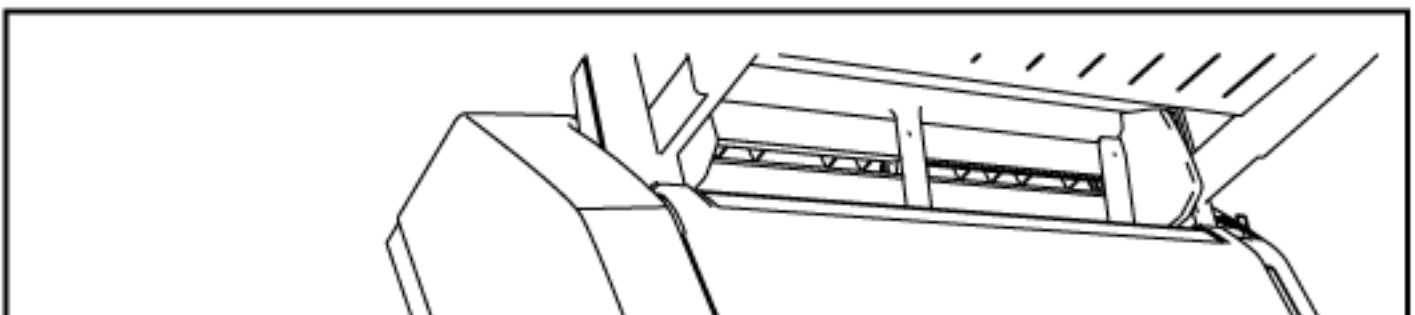
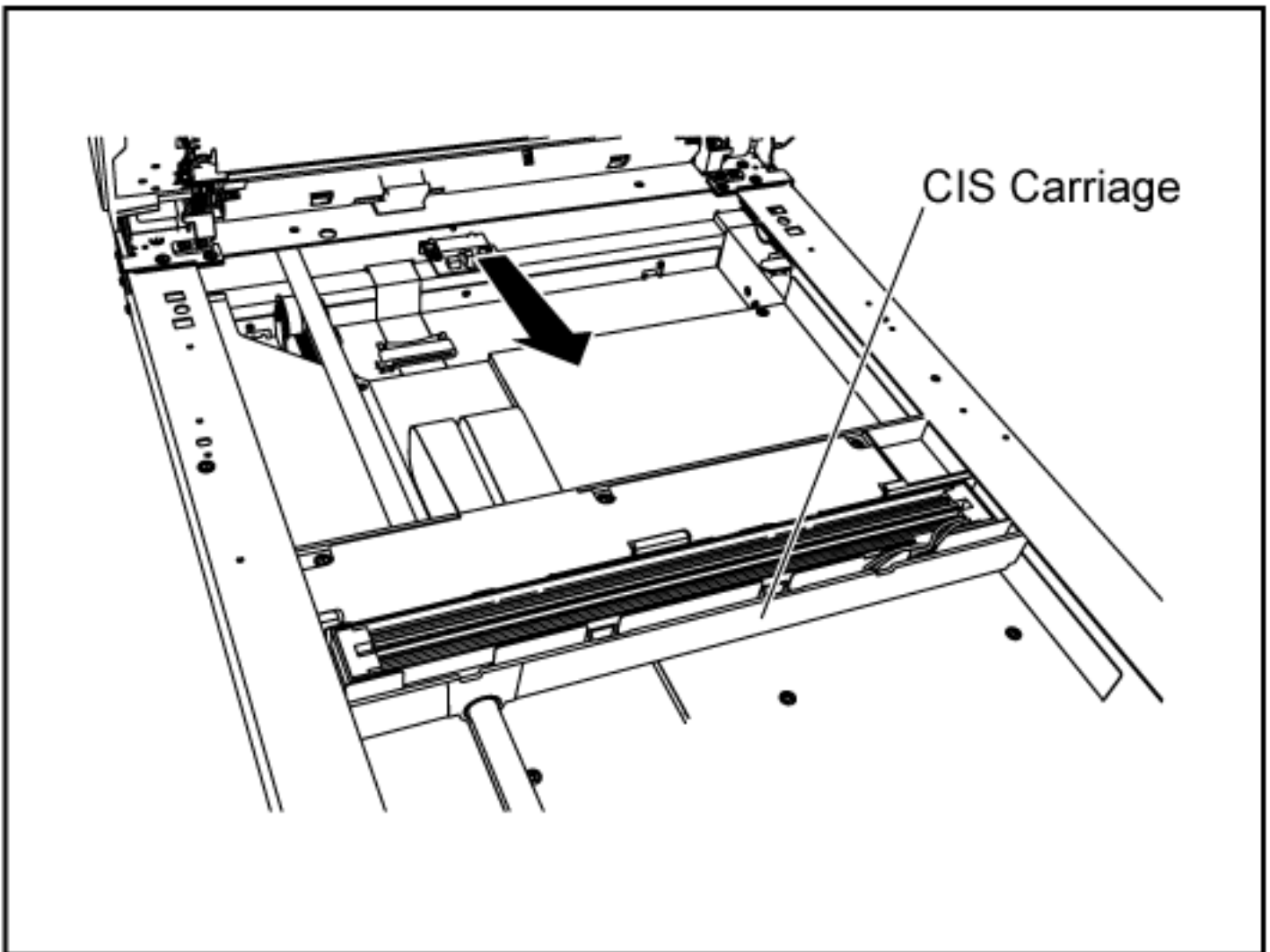
With the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper), be sure to clean up fingerprint and dirt from the glass. Otherwise, it may affect scanning image.

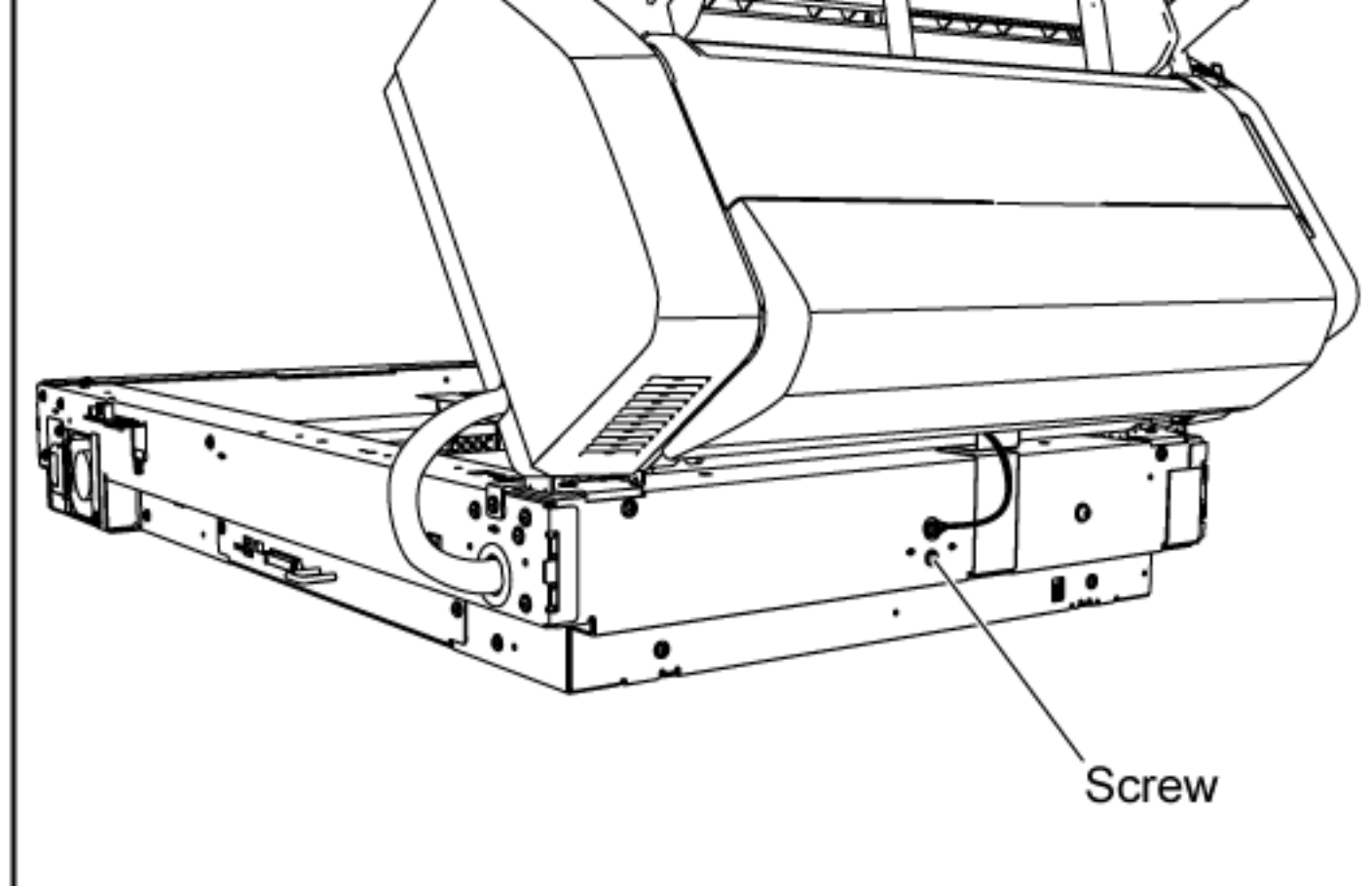


8.2.12 CARRIAGE HOME DETECTOR Board

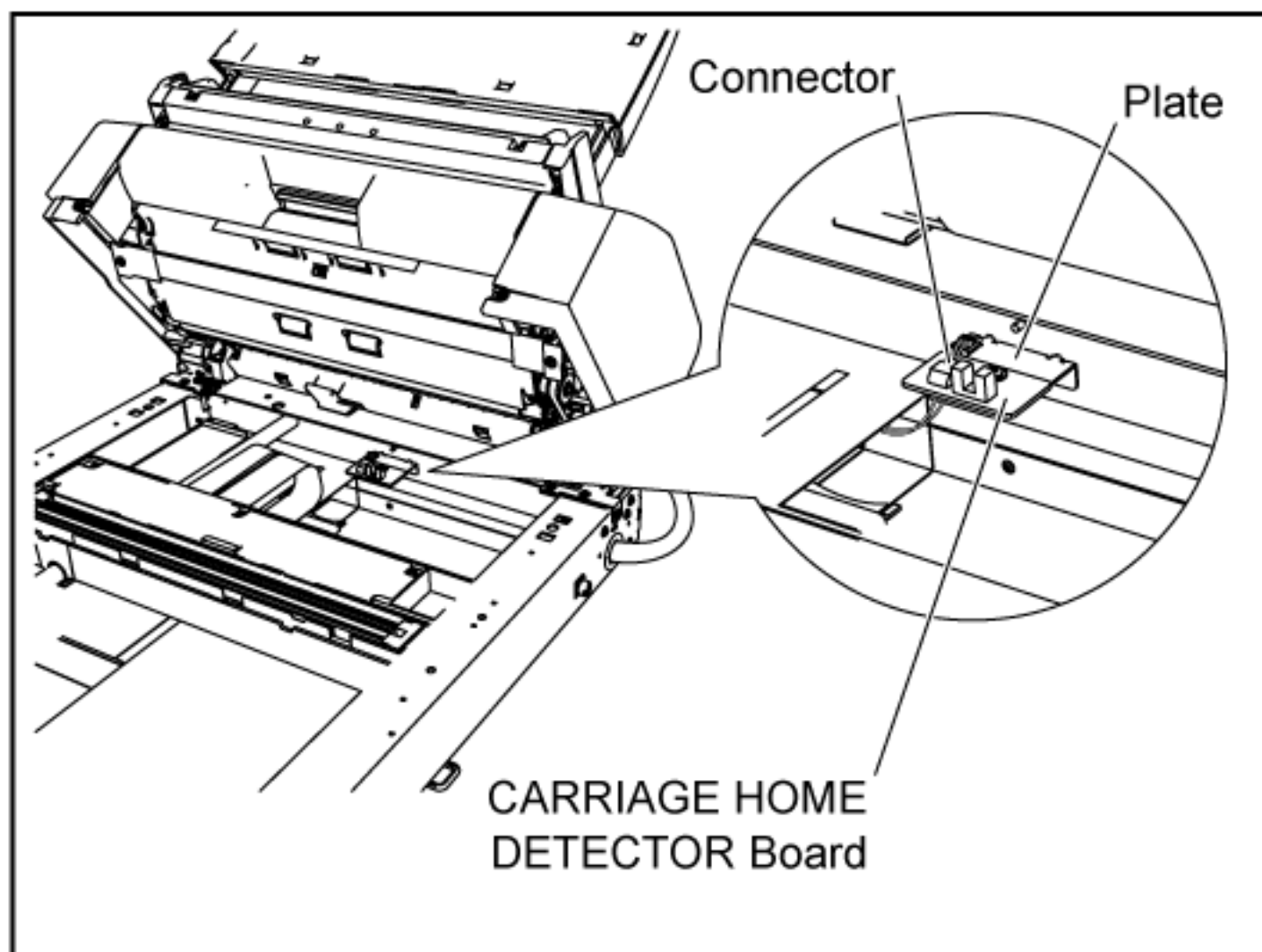
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Side Cover (L). (See 8.2.9.)
2. Remove the Flatbed Glass. (See 8.2.11.)
3. Slide the CIS Carriage to the right.
4. Remove the 1 screw from the left side of the scanner and 1 connector to release the CARRIAGE HOME DETCTOR Board with the plate from the scanner.

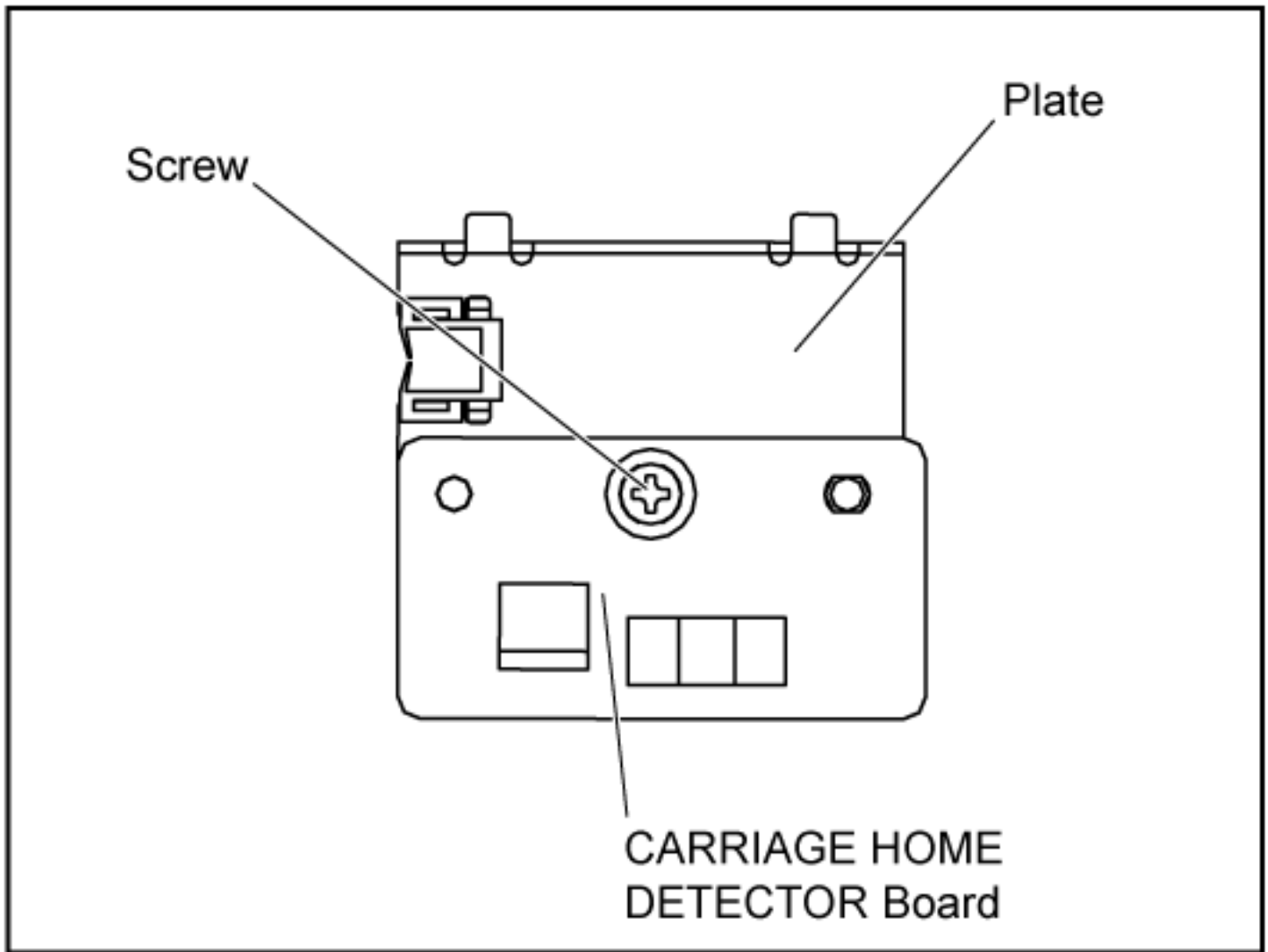




(Left Side View)



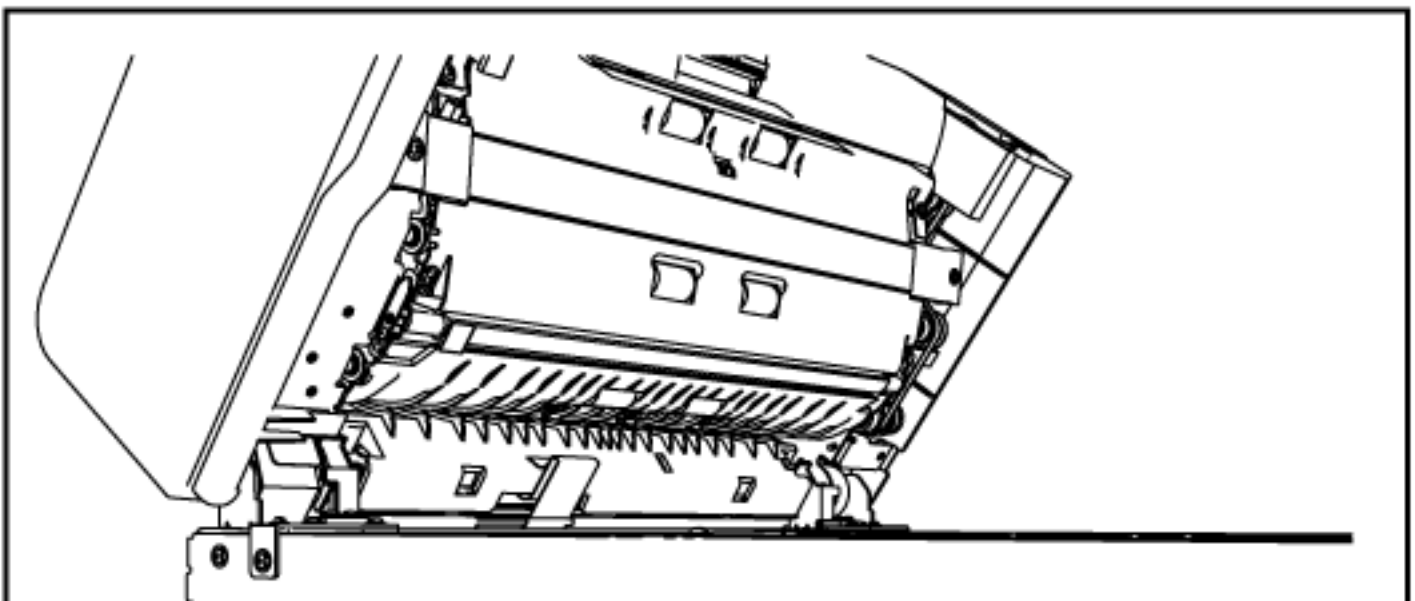
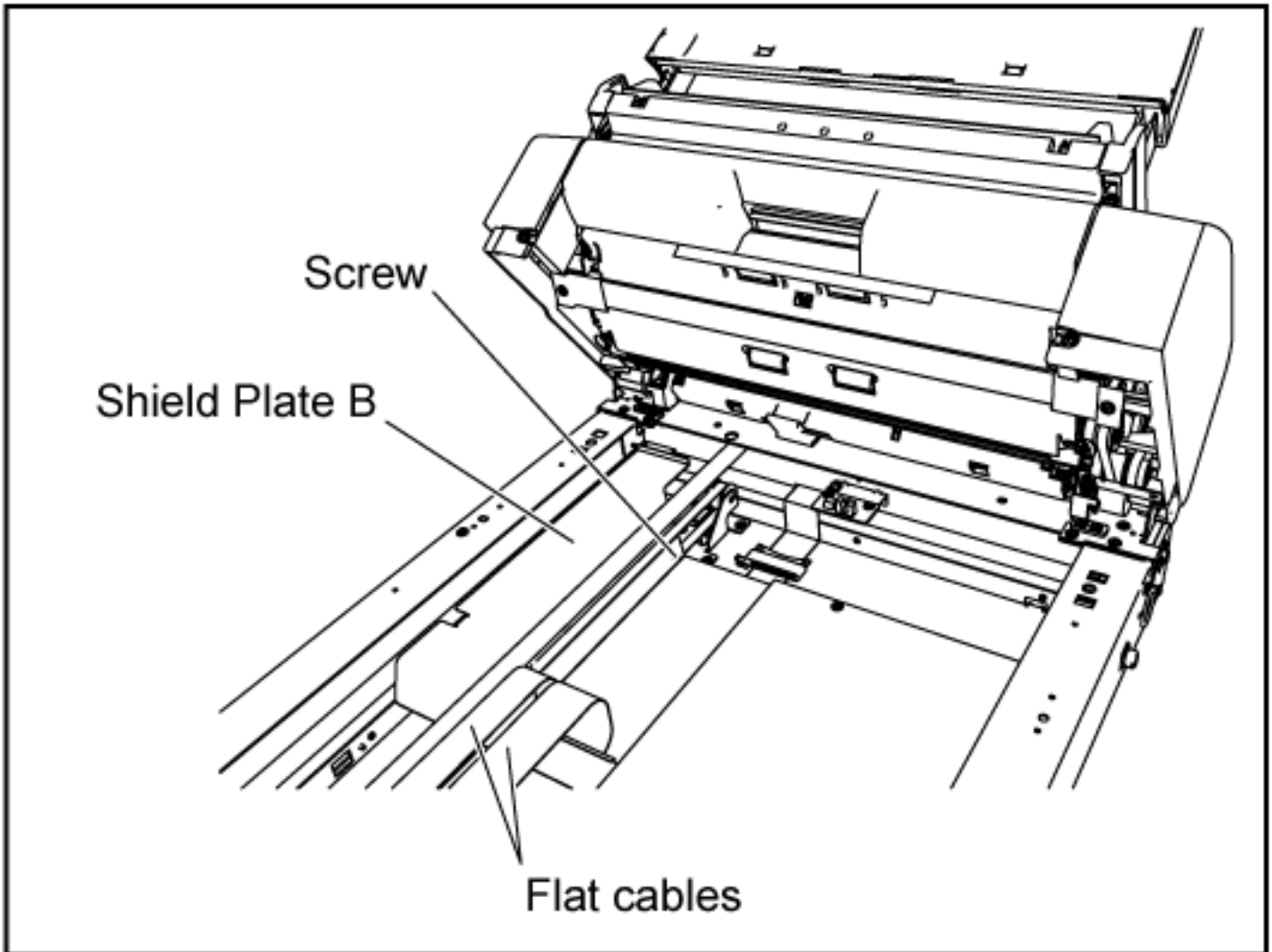
1. Remove the screw to release the board from the plate.

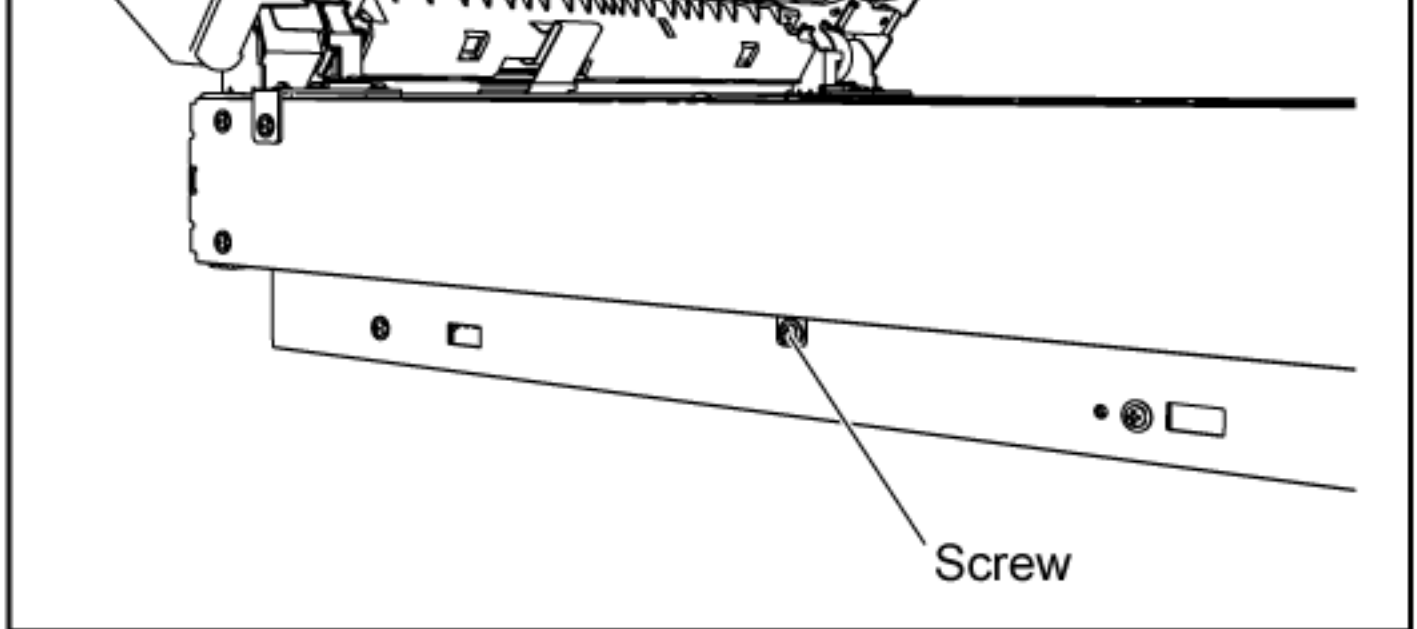


8.2.13 Shield Plates (A, B)

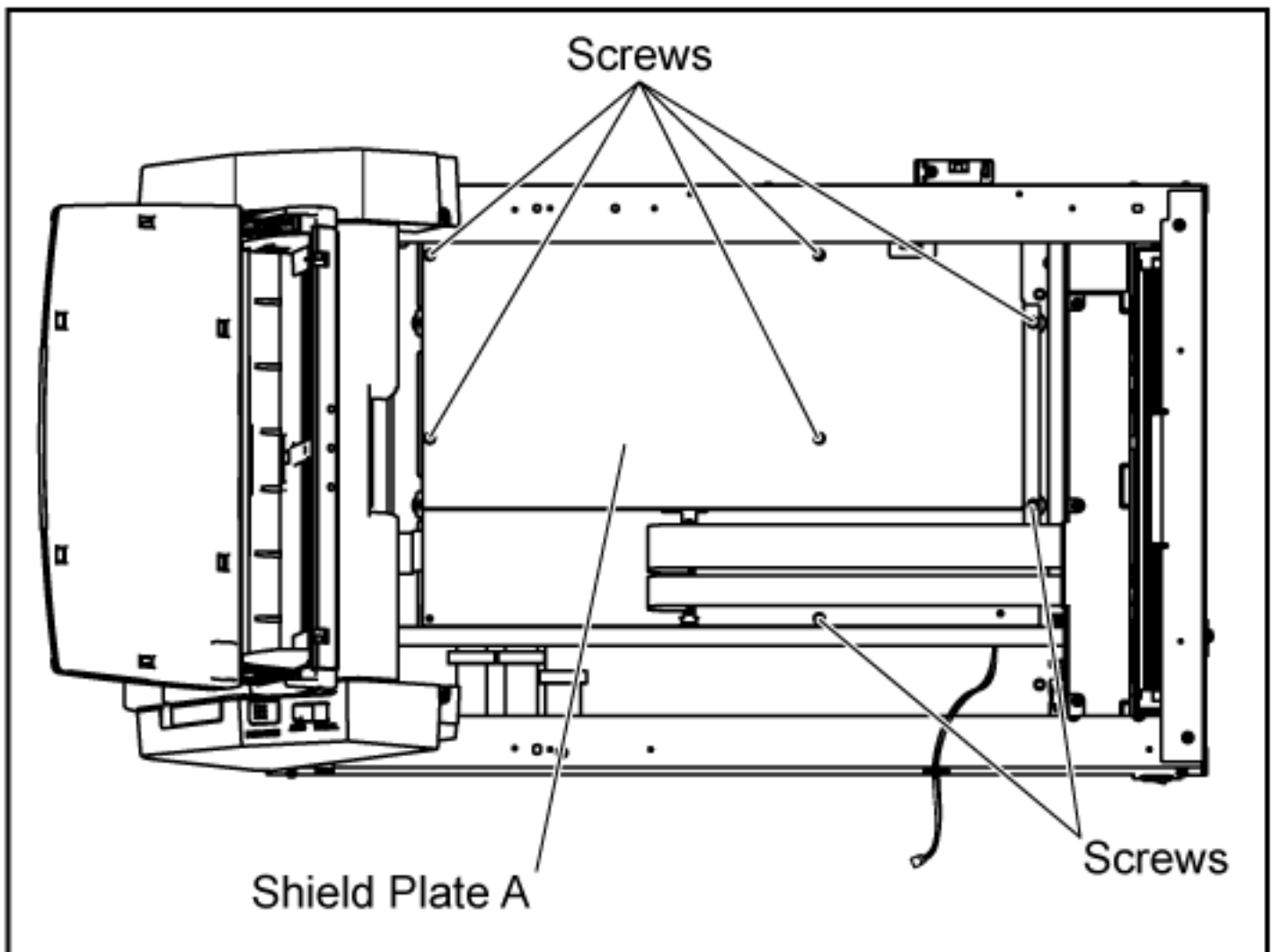
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Flatbed Glass. (See 8.2.11.)
2. Remove the 2 screws and remove the Shield Plate B, paying attention to the contact with the flat cables.





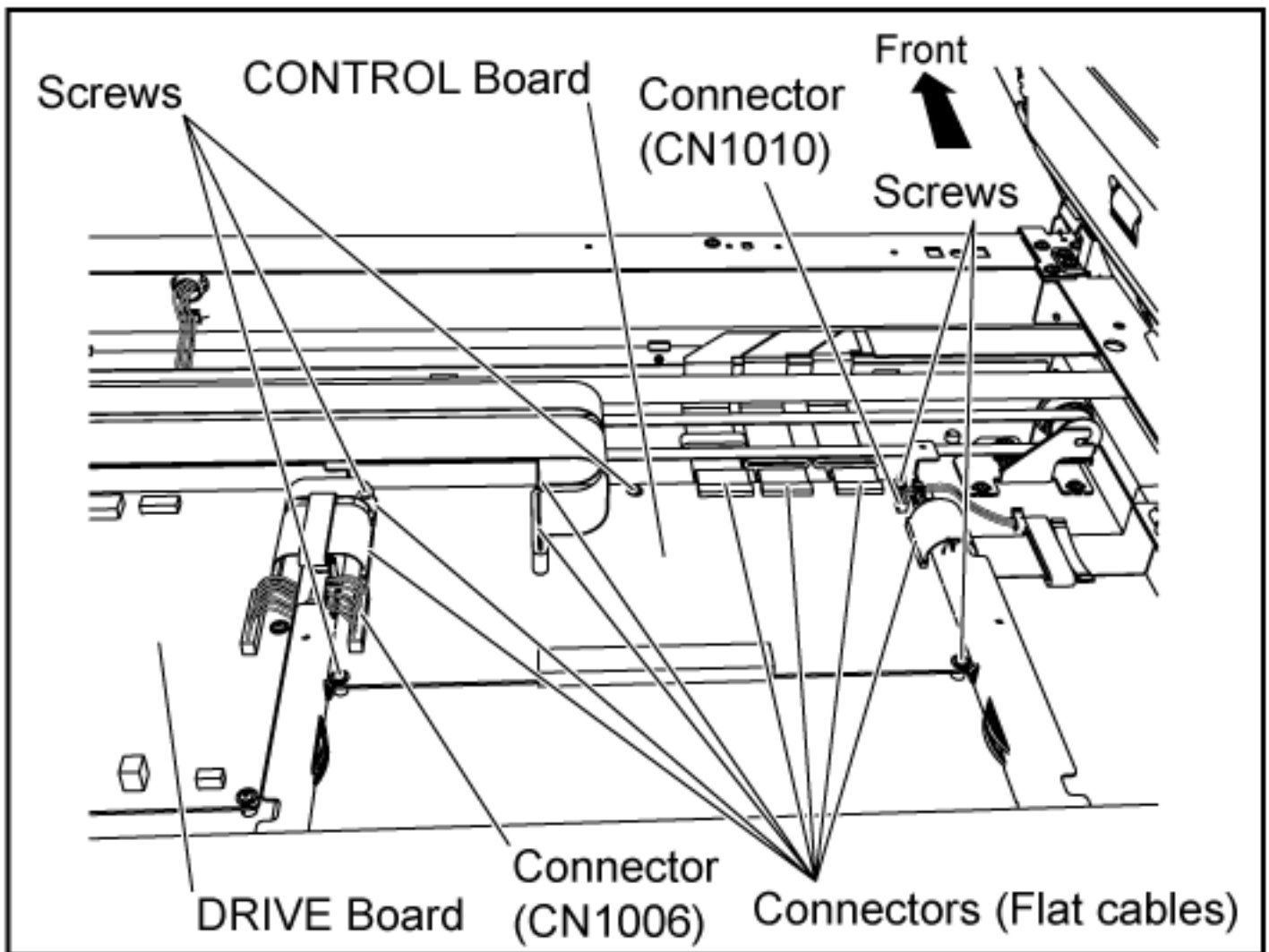
1. Remove the 7 screws and remove the Shield Plate A.



8.2.14 CONTROL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Shield Plate A. (See 8.2.13.)
2. Remove the Shield Plate B. (See 8.2.13.)
3. Remove the INTERFACE Board. (See 8.2.8.)
4. Disconnect the 8 flat cables and 2 connectors (CN1006, CN1010) on the CONTROL Board.
5. Remove the 5 screws on the CONTROL Board.

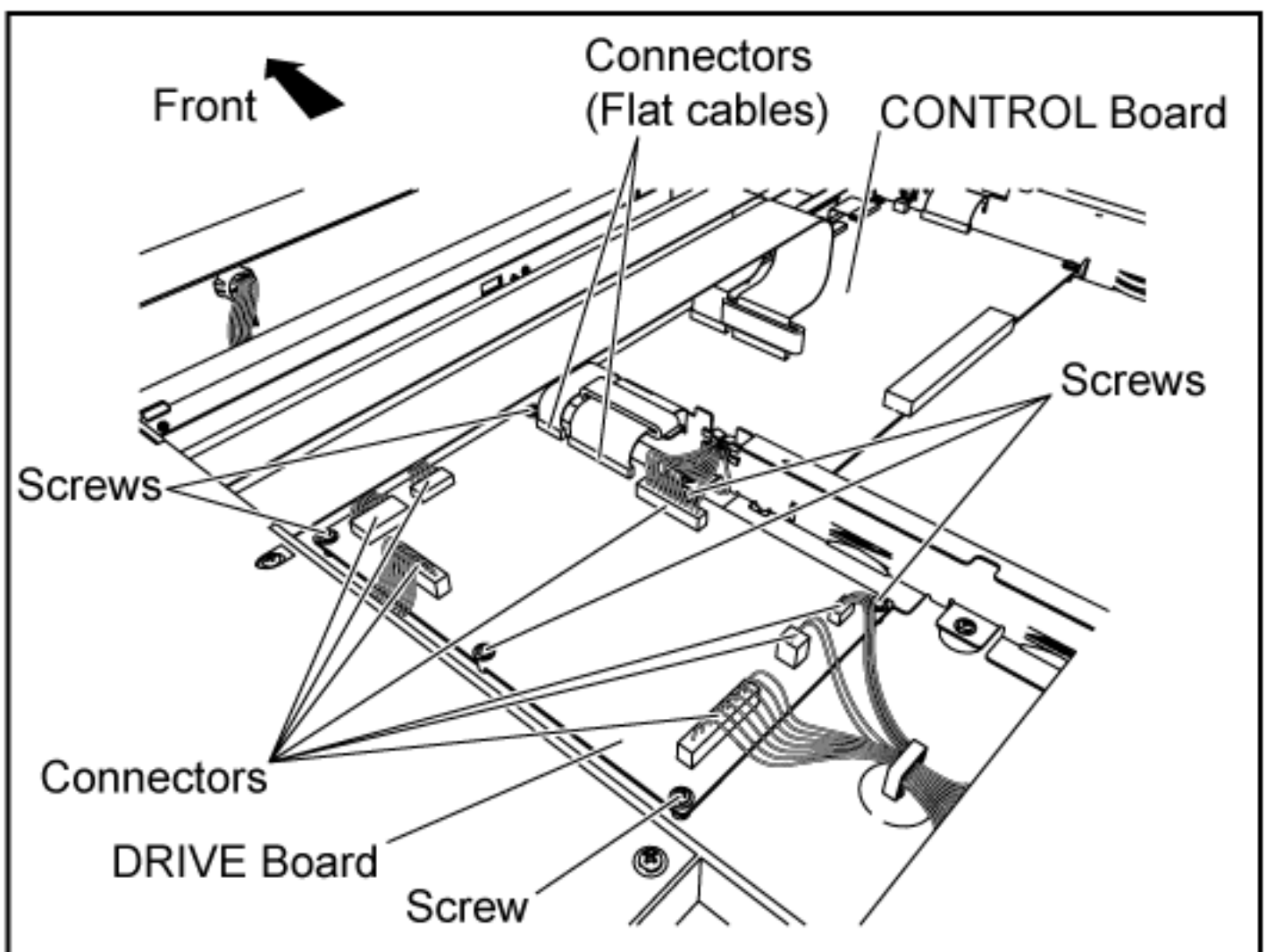


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.15 DRIVE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Shield Plate A. (See 8.2.13.)
2. Remove the Shield Plate B. (See 8.2.13.)
3. Disconnect the 2 flat cables and 7 connectors on the DRIVE Board.
4. Remove the 6 screws on the DRIVE Board.



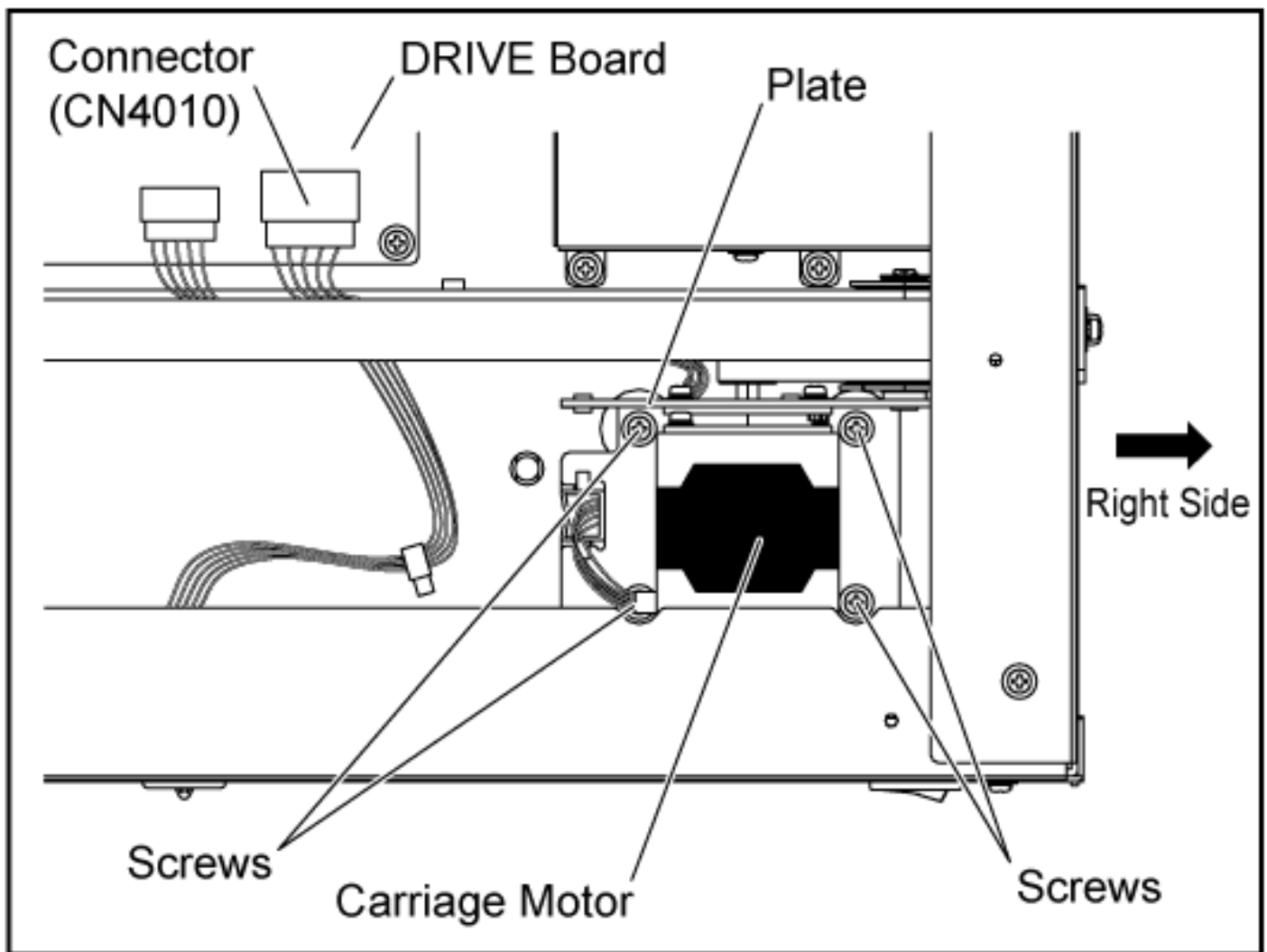
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.16 Carriage Motor

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Shield Plate A. (See 8.2.13.)
2. Remove the Shield Plate B. (See 8.2.13.)
3. Remove the 4 screws and 1 connector (CN4010) on the DRIVE Board to release the Carriage Motor with the plate from the scanner.

(Top View)



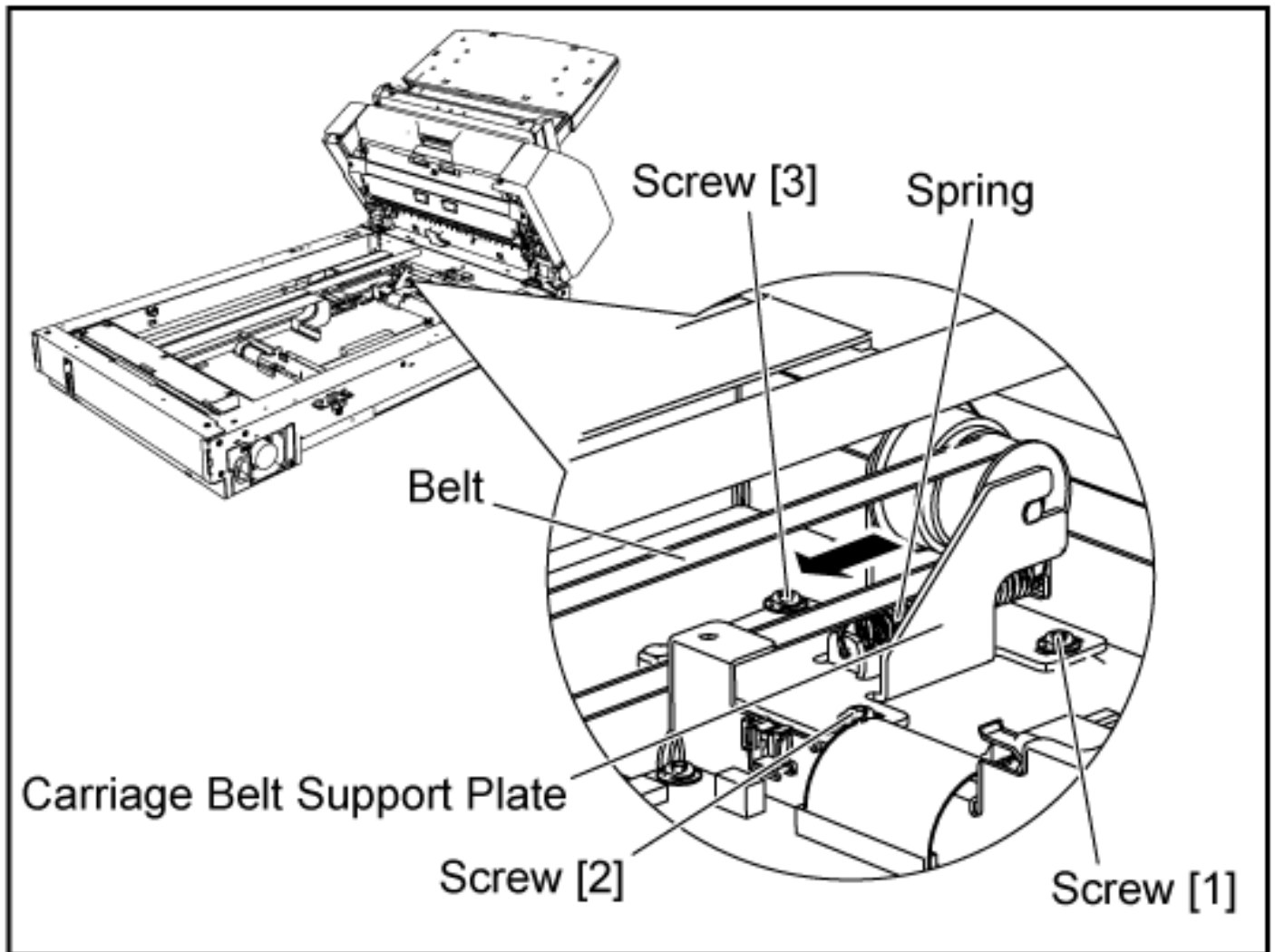
1. Remove the 2 screws to separate the motor from the plate and belt.

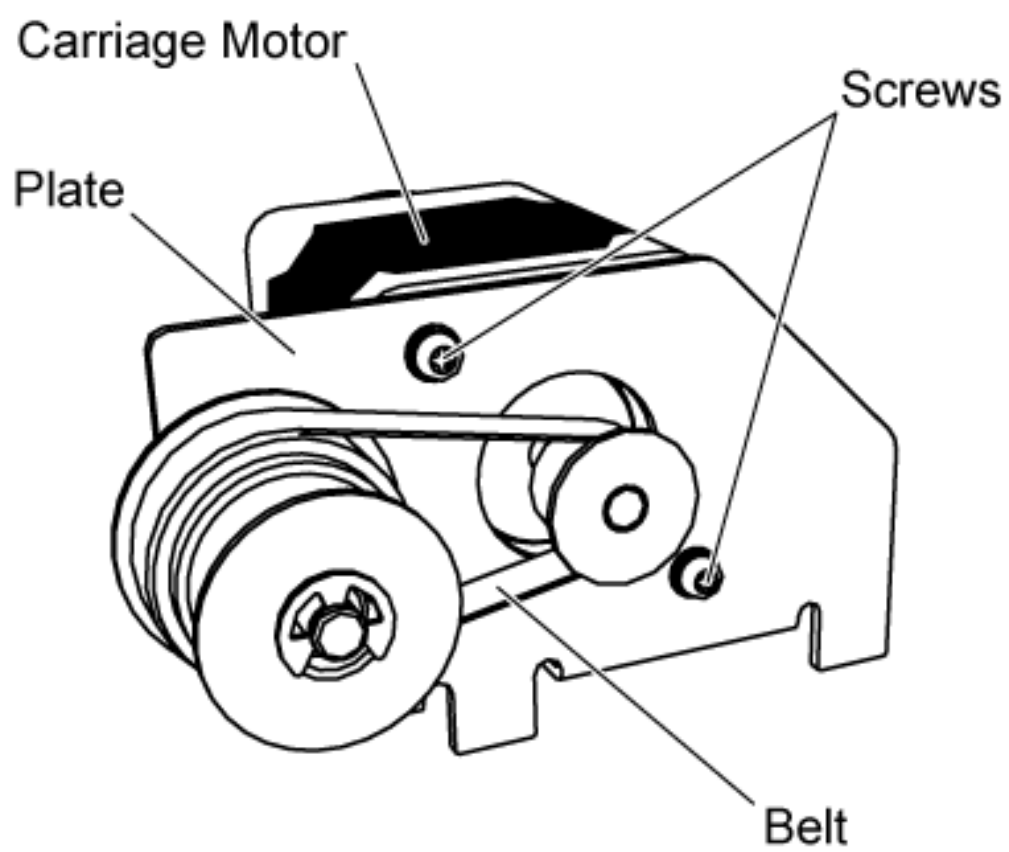
Reassembling Note:

- A. Loosen the 3 screws and pull the Carriage Belt Support Plate in the direction of the arrow so as to reattach the Carriage Belt easily.

And tighten the 3 screws.

- B. Reattach the Carriage Motor and belt to the original position in the reverse order of the disassembling.
- C. Loosen the 3 screws again, which makes the belt tension increased, naturally.
- D. Tighten the 3 screws in order of [1], [2], and [3].





[TOP](#) [PREVIOUS](#) [NEXT](#)

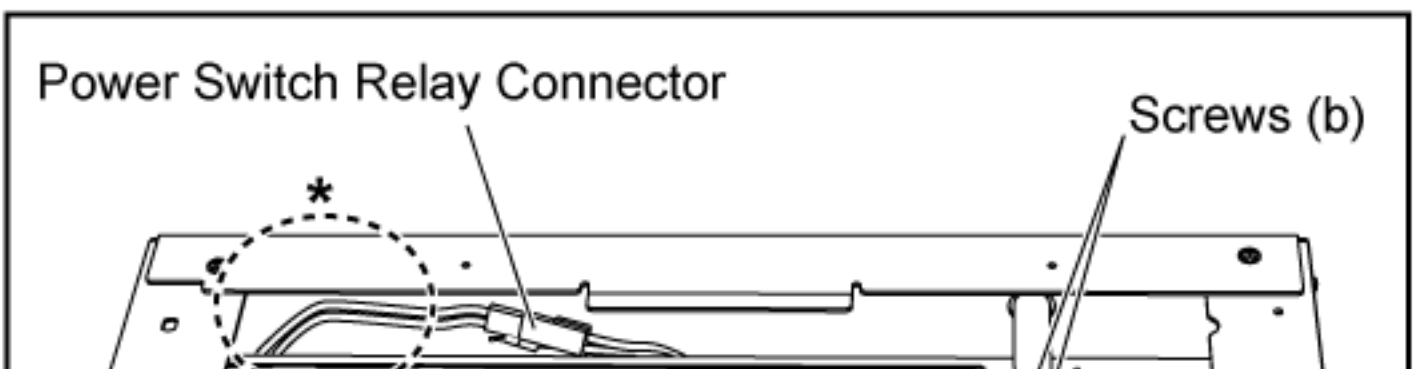
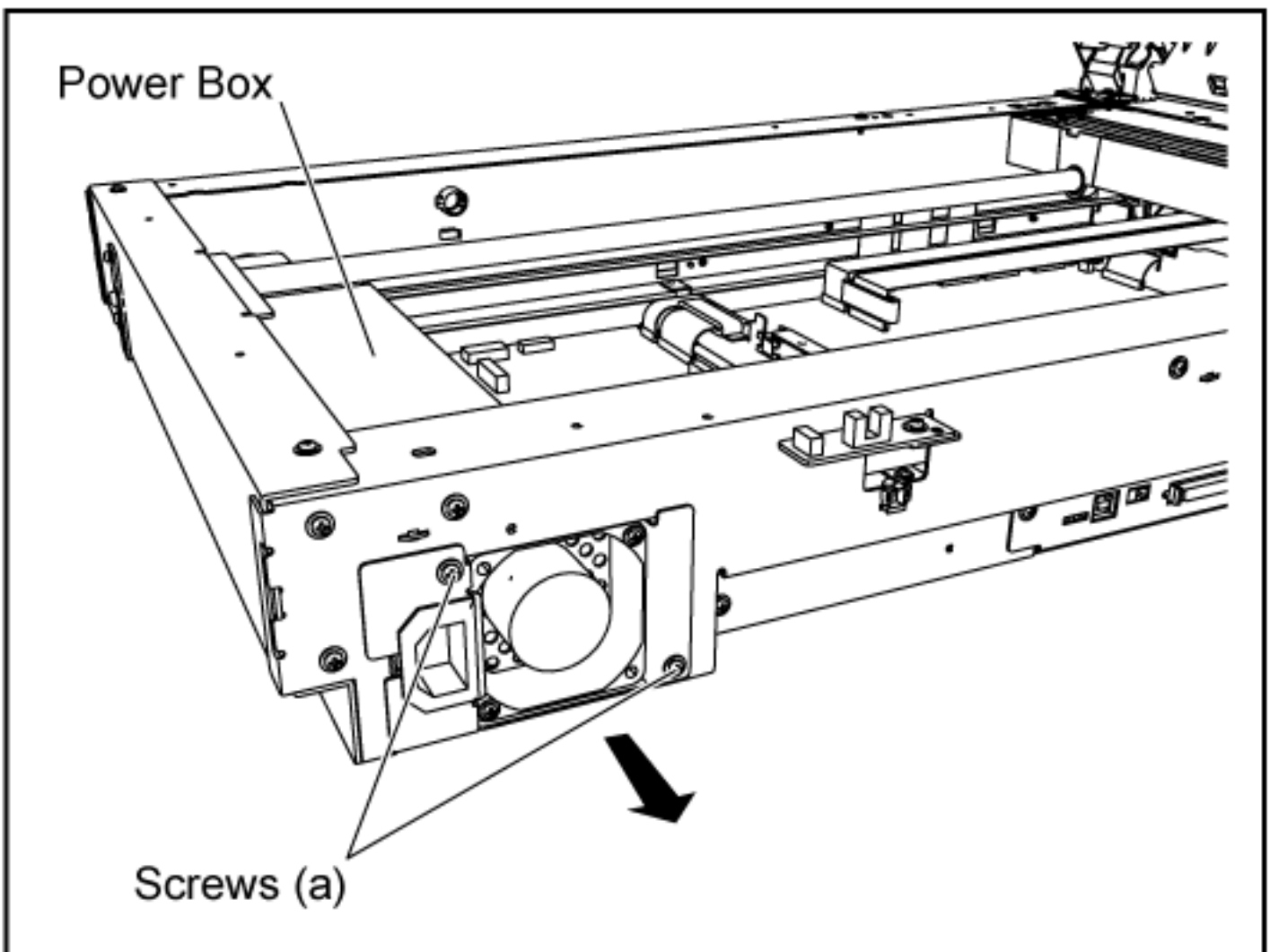
8.2.17 Power Box& Cover

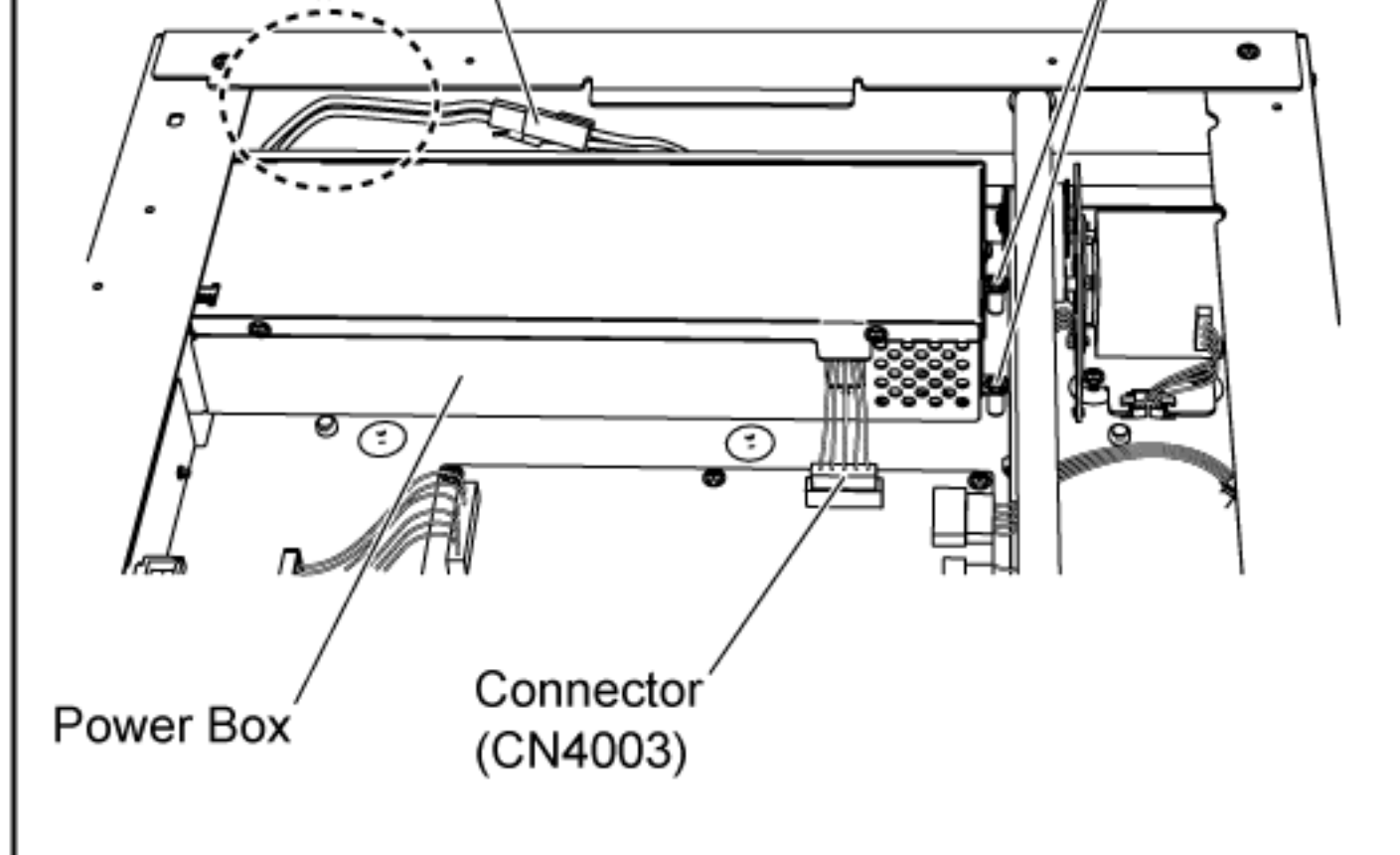
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Shield Plates (A, B). (See 8.2.13.)
2. Remove the 2 screws (a), 2 screws (b), and 2 connectors (CN4003, Power Switch Relay Connector) and pull out the Power Box in the direction of the arrow.

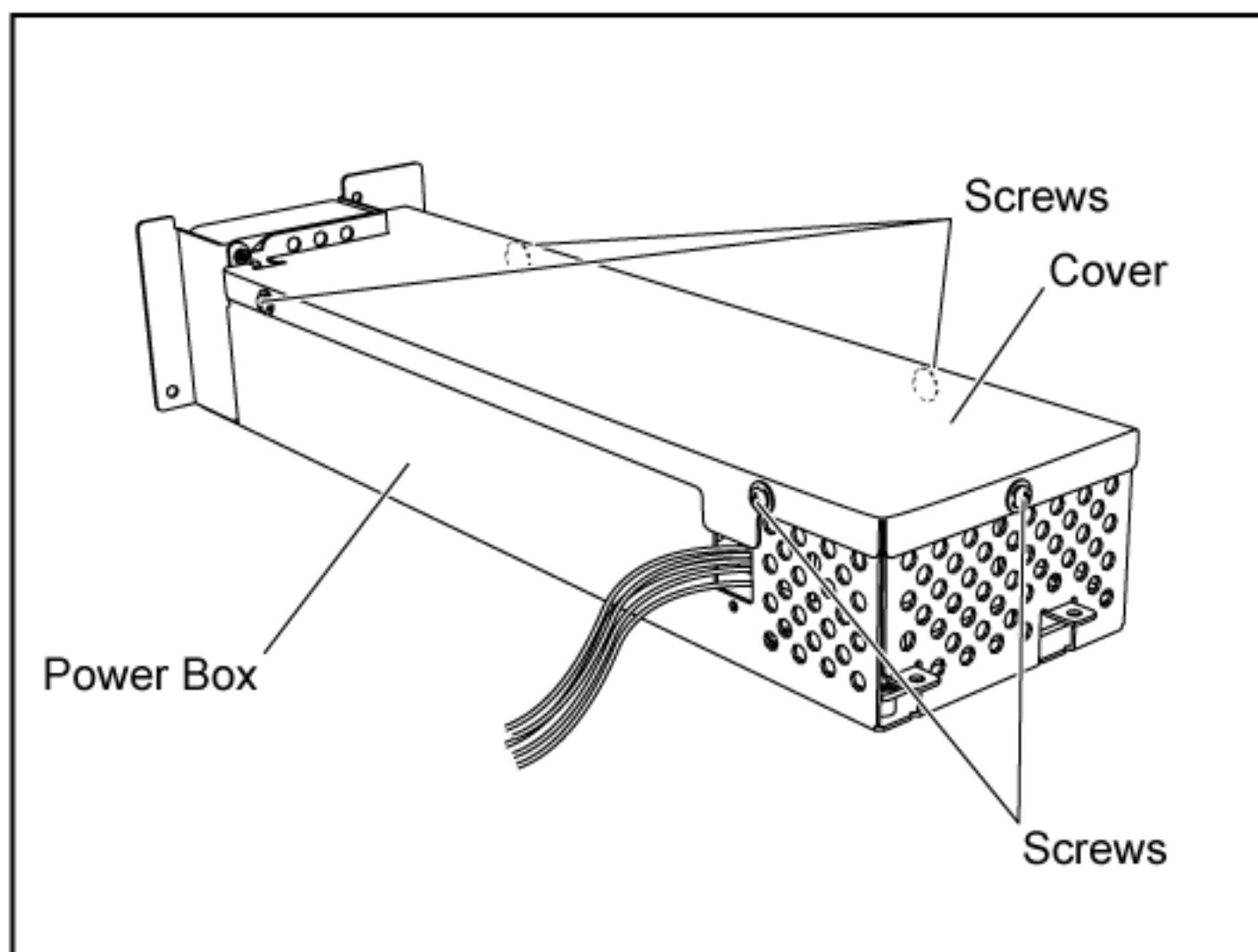
Note:

* When pulling out Power Box, be sure not to damage the Power Switch Relay Connector in the Power Box.





1. Remove the 5 screws to release the Cover from the box.

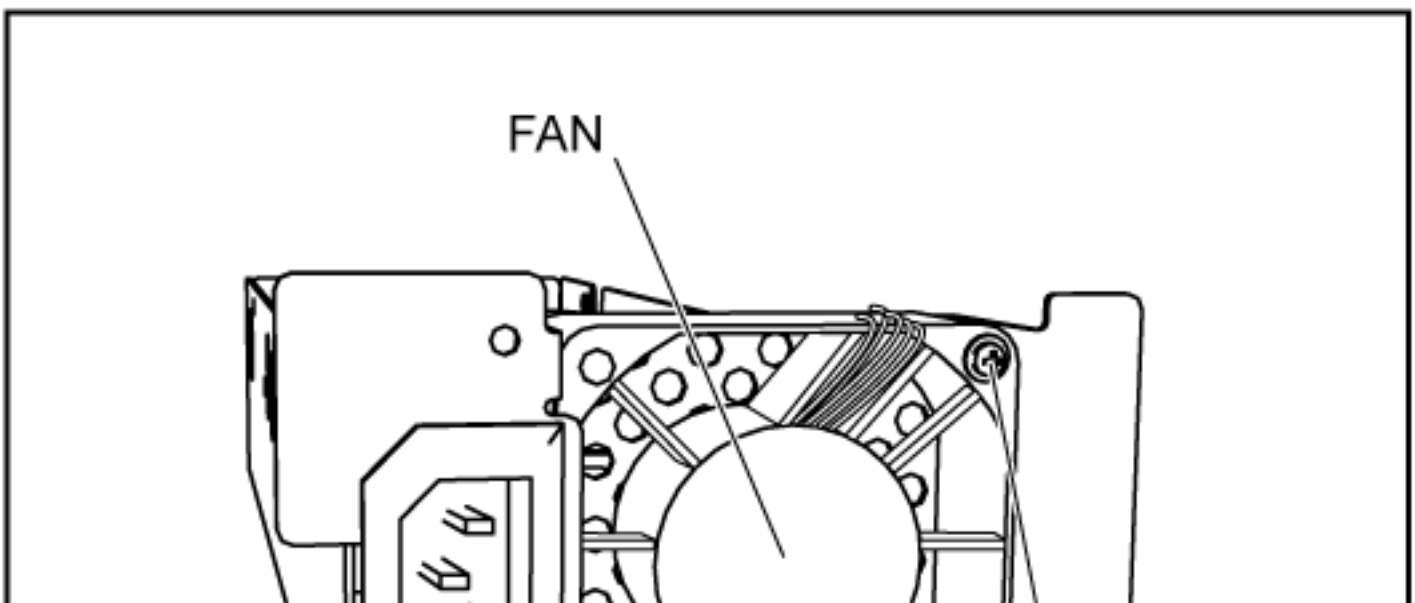
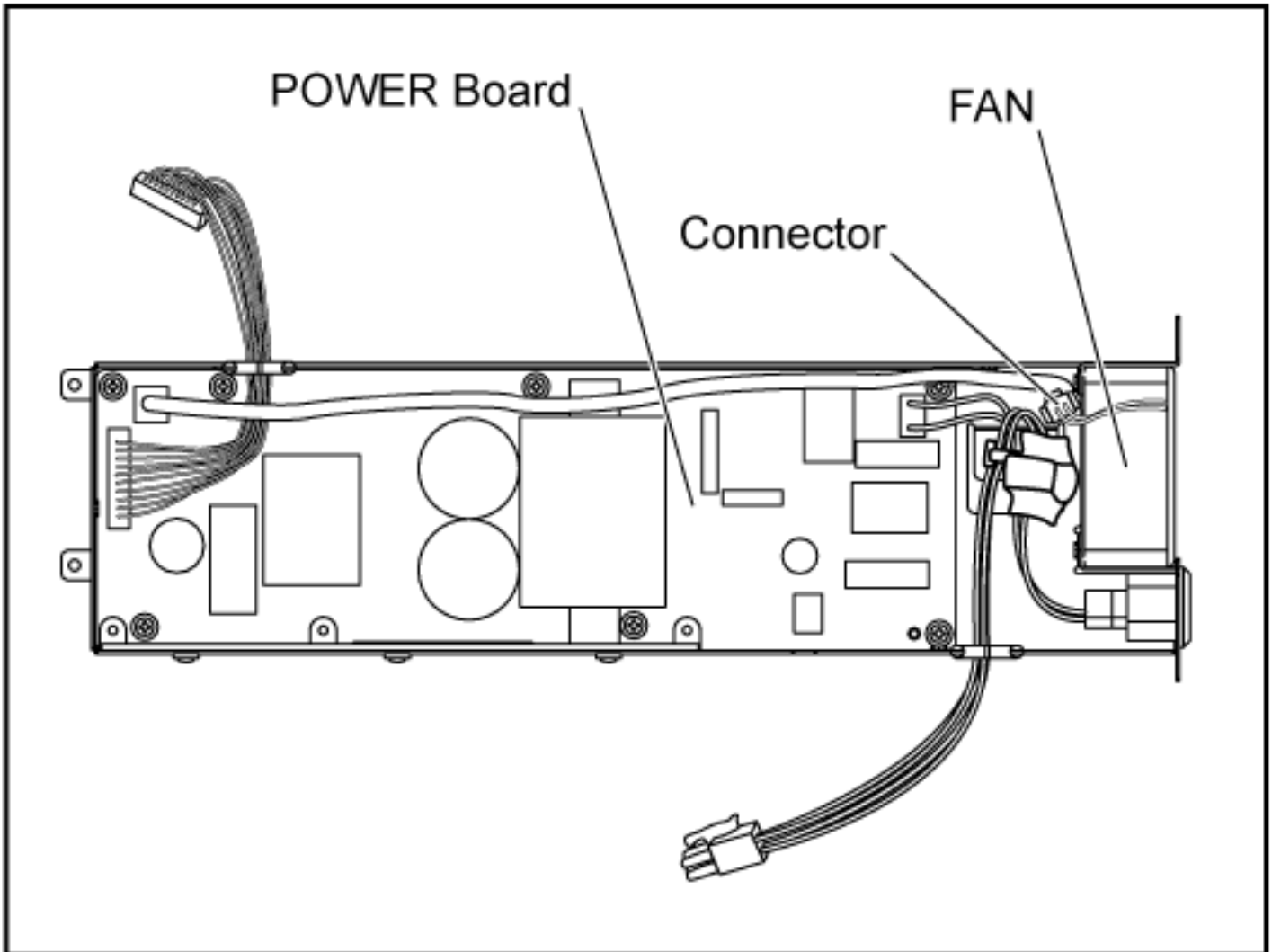


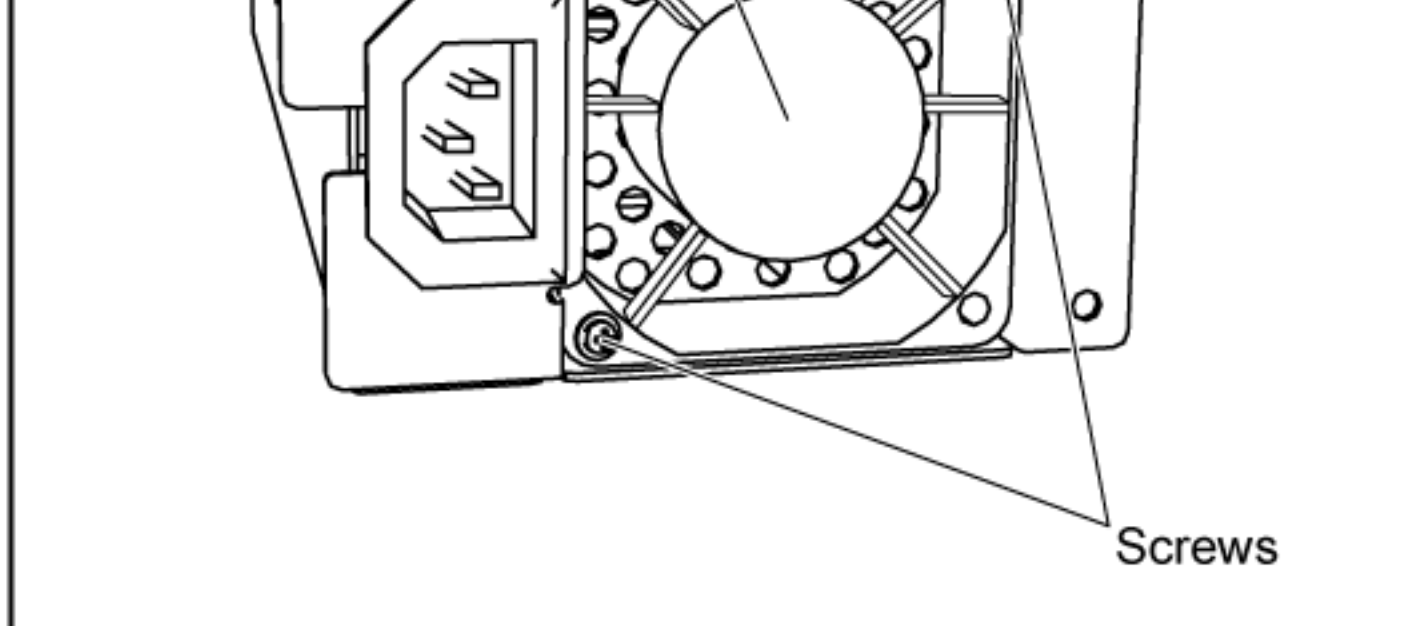
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.18 FAN

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Power Box & Cover. (See 8.2.17.)
2. Remove the 1 connector to the POWER Board and 2 screws to release the FAN from the board.



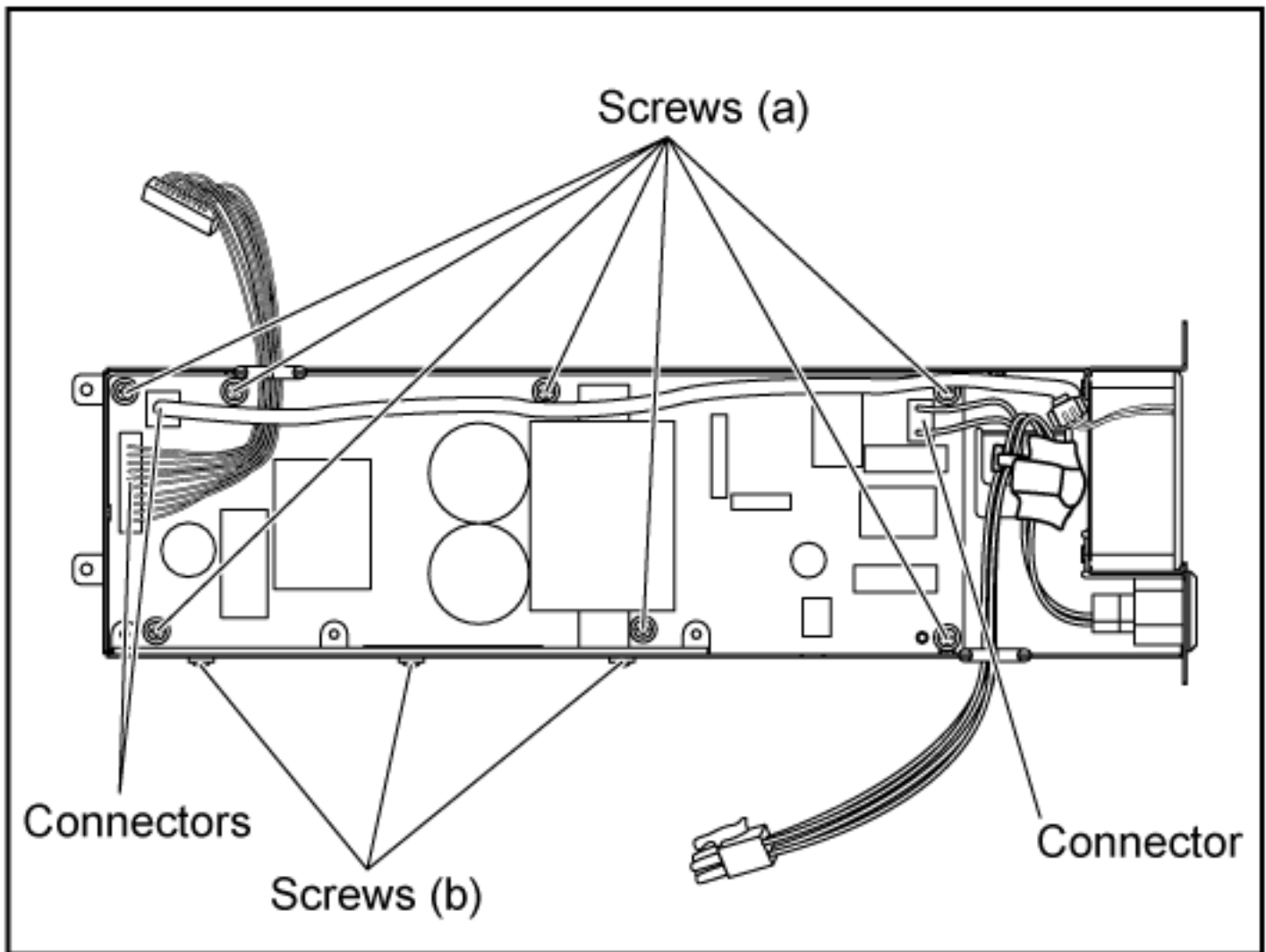


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.19 POWER Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Power Box & Cover. (See 8.2.17.)
2. Remove the 7 screws (a), 3 screws (b), and all connectors on the POWER Board.

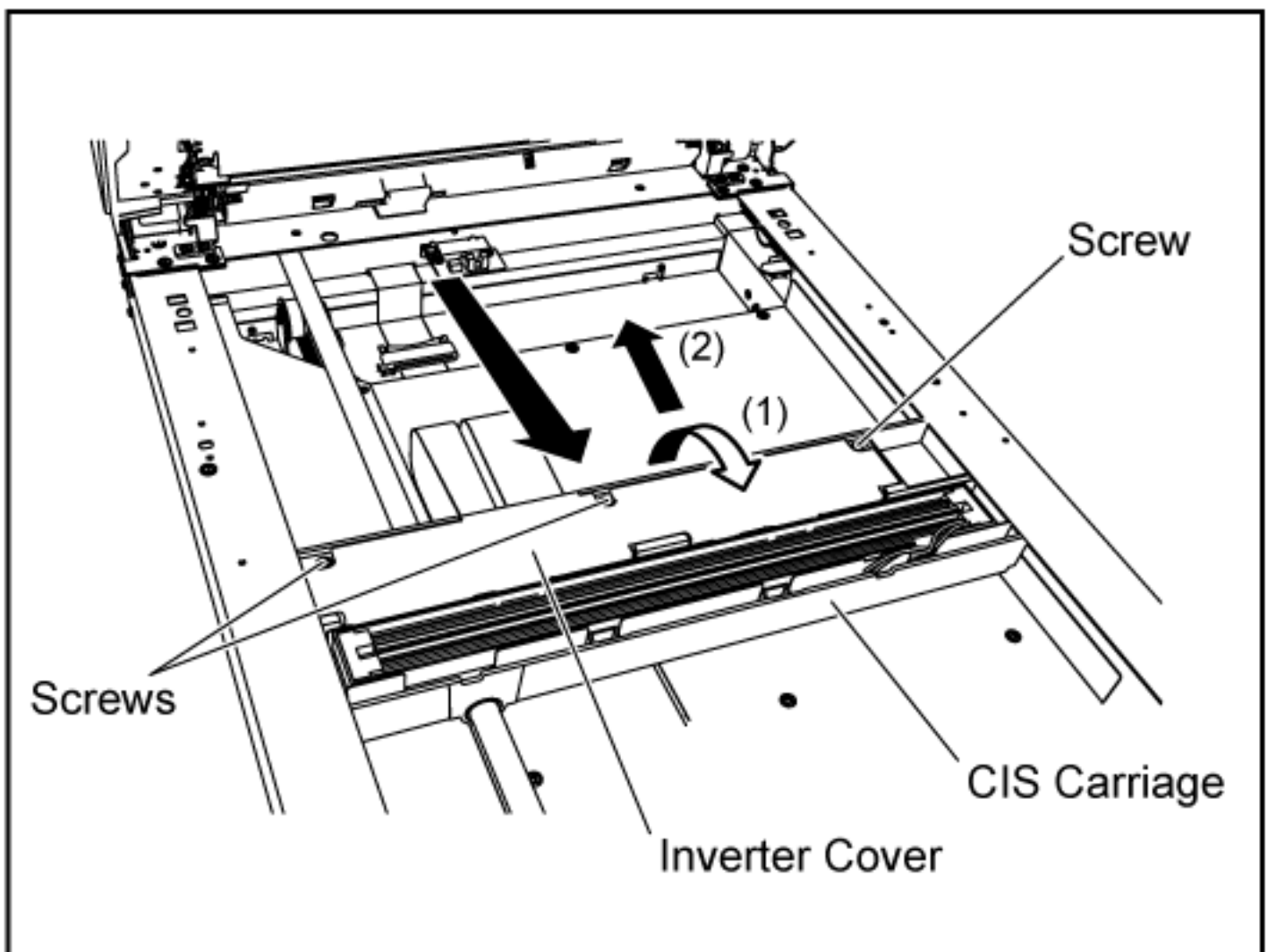


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.20 Inverter Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Flatbed Glass. (See 8.2.11.)
2. Slide the CIS Carriage to the right.
3. Remove the 3 screws to release the Inverter Cover from the carriage.
4. Lift the Inverter Cover in the direction of the arrow (1), and slide it in the direction of the arrow (2) to remove it.

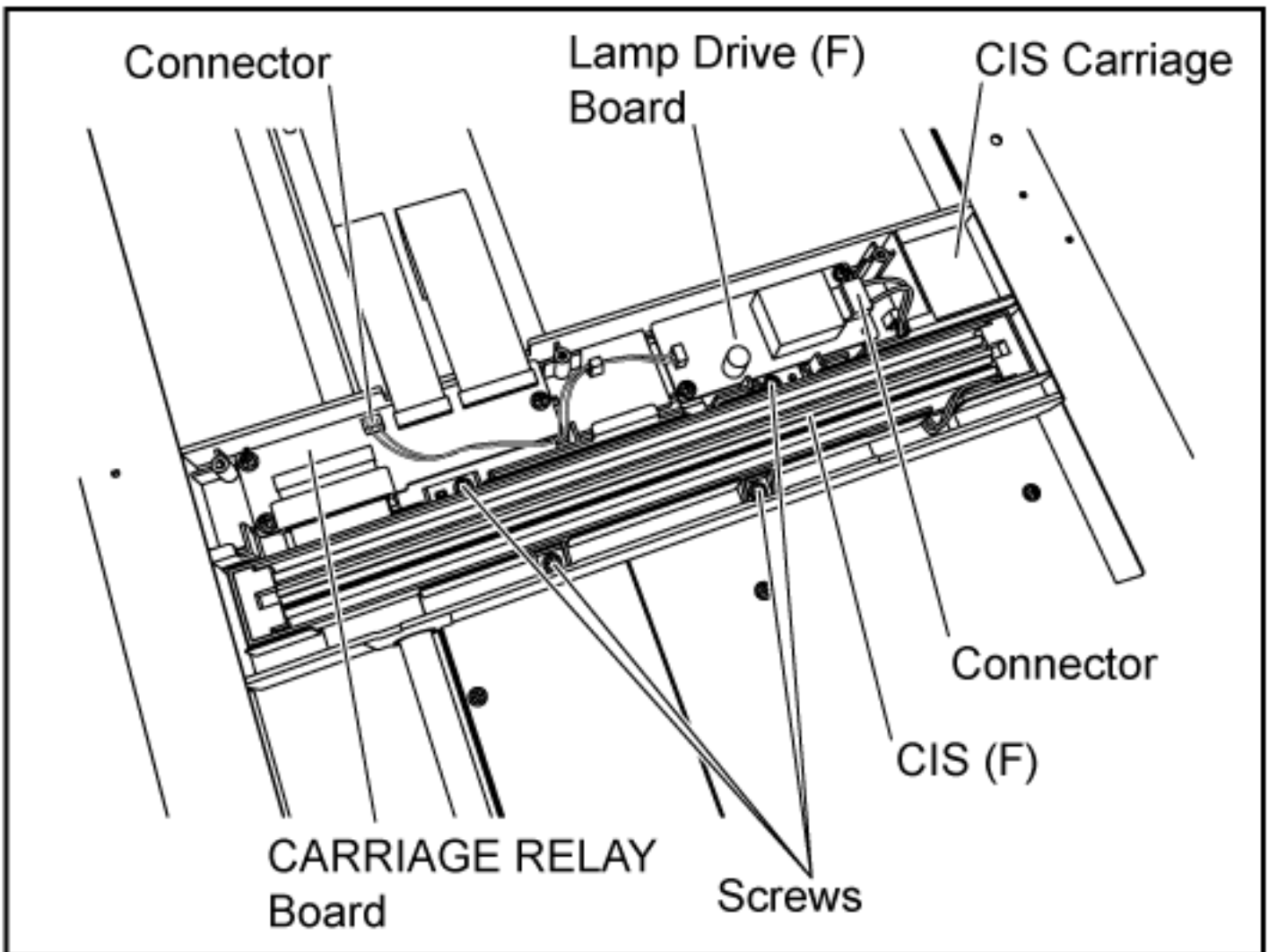


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.21 CIS (F)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Inverter Cover. (See 8.2.20.)
2. Remove the 4 screws and 2 connectors to release the CIS (F) from the CIS Carriage.

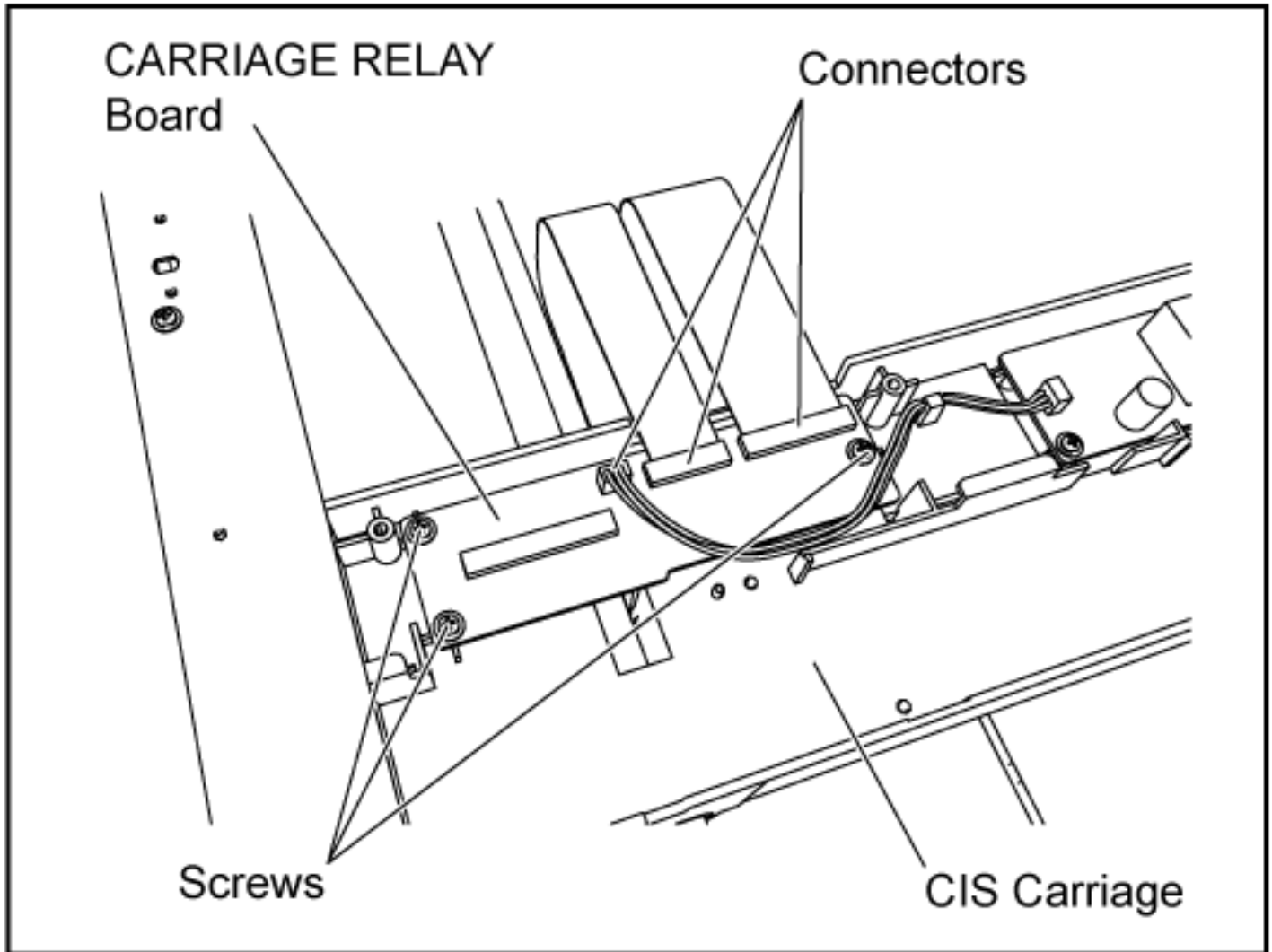


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.22 CARRIAGE RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the CIS (F). (See 8.2.21.)
2. Remove the 3 connectors (CN3000, CN3001, CN3002) and 3 screws to release the CARRIAGE RELAY Board from the CIS carriage.

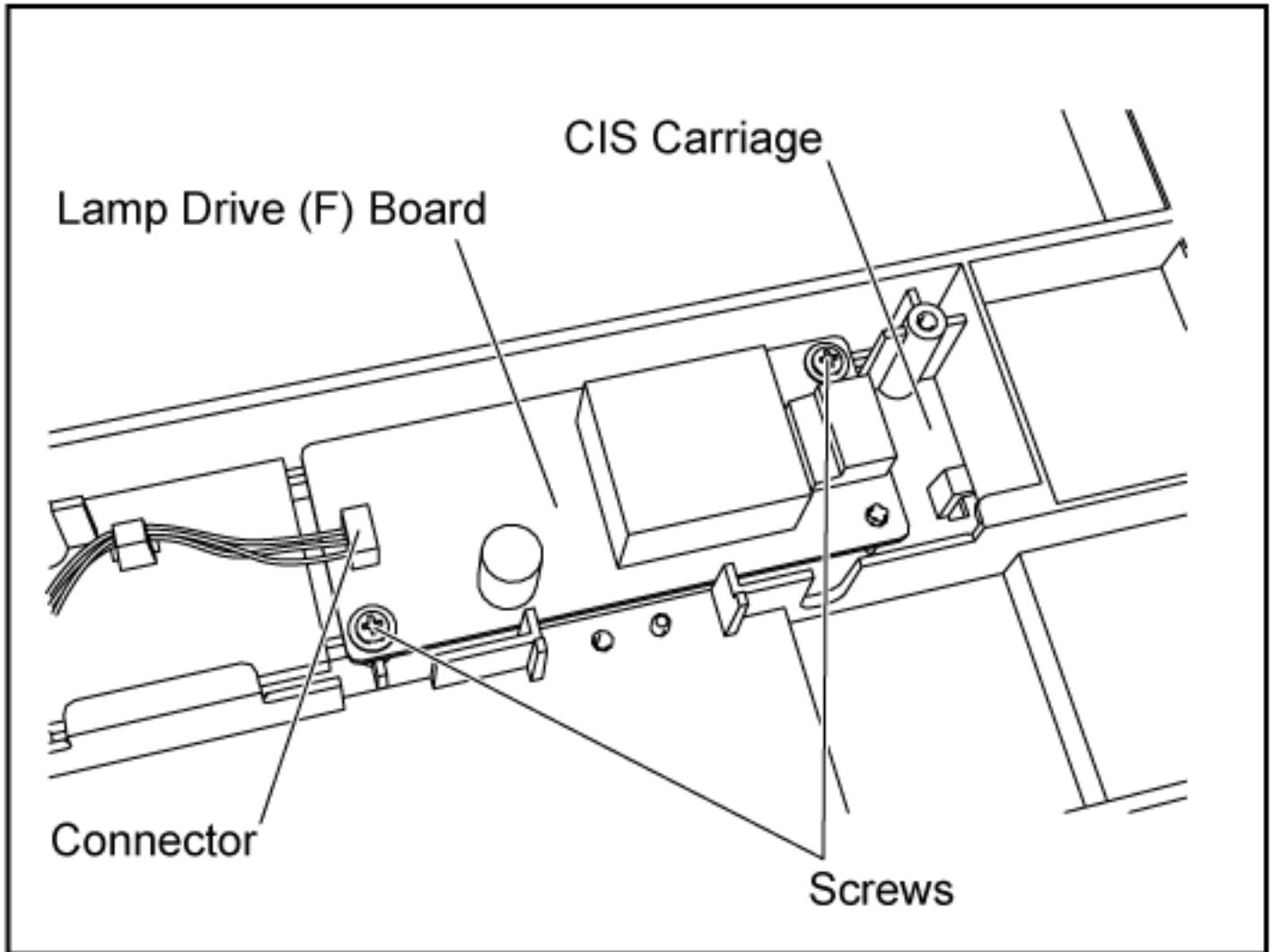


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.2.23 Lamp Drive (F) Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the CIS (F). (See 8.2.21.)
2. Remove the 1 connector and 2 screws to release the Lamp Drive (F) Board from the CIS Carriage.



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3 Disassembly for ADF Block

[TOP](#) [PREVIOUS](#) [NEXT](#)

[8.3.1 Imprinter Door](#)

[8.3.2 Double Feed Detector \(R\)](#)

[8.3.3 OUTER CONVEYOR RELAY Board](#)

[8.3.4 Paper Feed Roller Module](#)

[8.3.5 Retard Roller](#)

[8.3.6 Top Cover](#)

[8.3.7 WAITING SENSOR Board](#)

[8.3.8 Hopper Tray](#)

[8.3.9 Hopper](#)

[8.3.10 SIZE DETECTOR Board](#)

[8.3.11 Paper Sensor](#)

[8.3.12 ADF Cover \(F\)](#)

[8.3.13 SENSOR RELAY Board](#)

[8.3.14 ADF Cover \(B\)](#)

[8.3.15 ADF Door Switch](#)

[8.3.16 POWER RELAY Board](#)

[8.3.17 Conveyor 1](#)

[8.3.18 Drive Belts 1, 2, 3](#)

[8.3.19 Drive Rollers 1, 2, 3](#)

[8.3.20 Double Feed Detector \(G\)](#)

[8.3.21 STARTING SENSOR Board](#)

[8.3.22 ADF Glass \(B\)](#)

[8.3.23 Conveyor 2](#)

[8.3.24 Drive Roller 4](#)

[8.3.25 Hopper Front Cover](#)

[8.3.26 Hopper Base](#)

[8.3.27 HOPPER HOME DETECTOR Board](#)

[8.3.28 Retard Conveyor](#)

[8.3.29 HOPPER RELAY Board](#)

[8.3.30 Exit Conveyor](#)

[8.3.31 Exit Roller](#)

[8.3.32 ENDING SENSOR Board](#)

[8.3.33 Exit Door Switch](#)

[8.3.34 CIS \(B\) & CIS RELAY Board](#)

[8.3.35 Lamp Drive \(B\) Board](#)

[8.3.36 Paper Feed Motor](#)

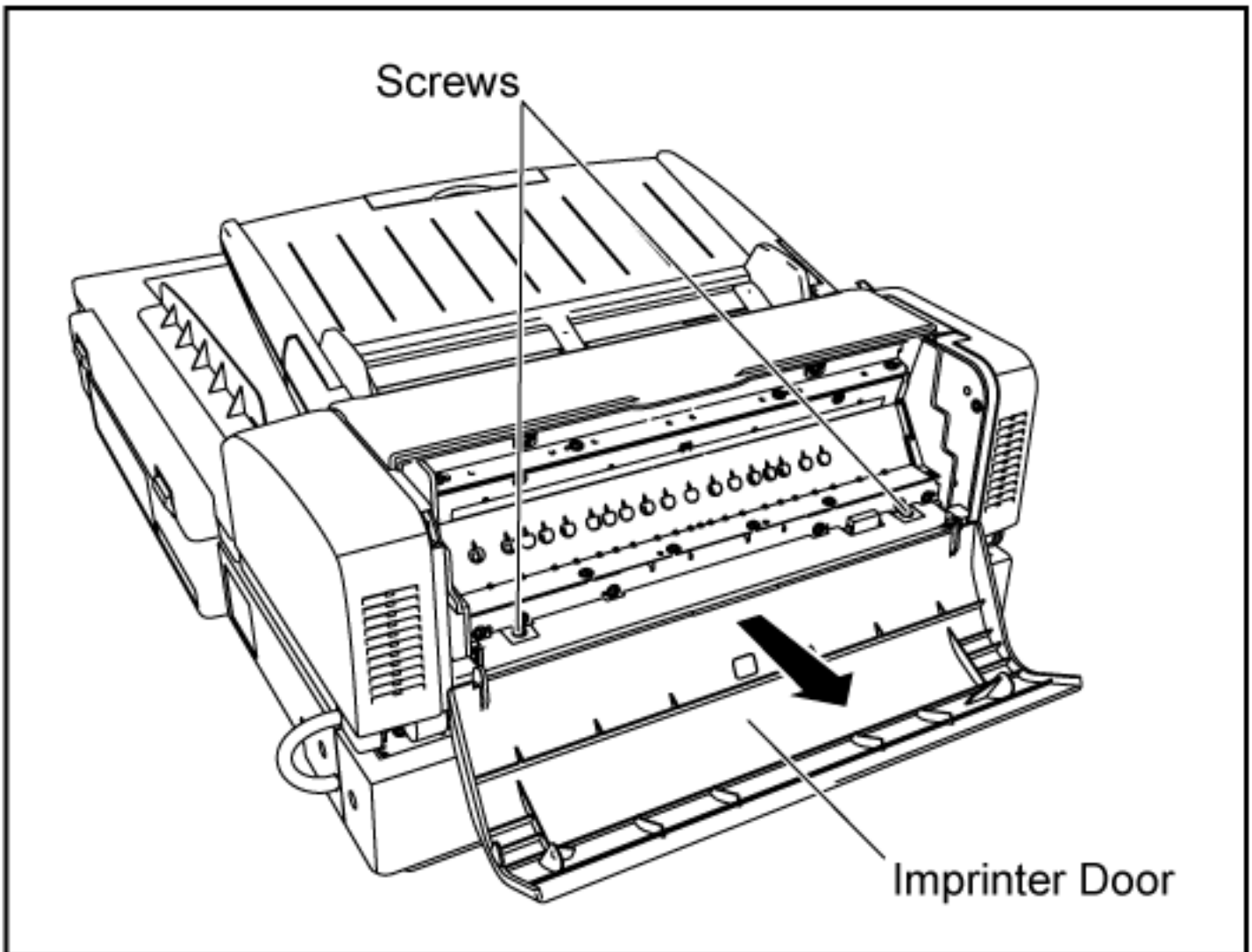
[8.3.37 Conveyor Motor](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.1 Imprinter Door

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the 2 screws and pull the Imprinter Door in the direction of the arrow.



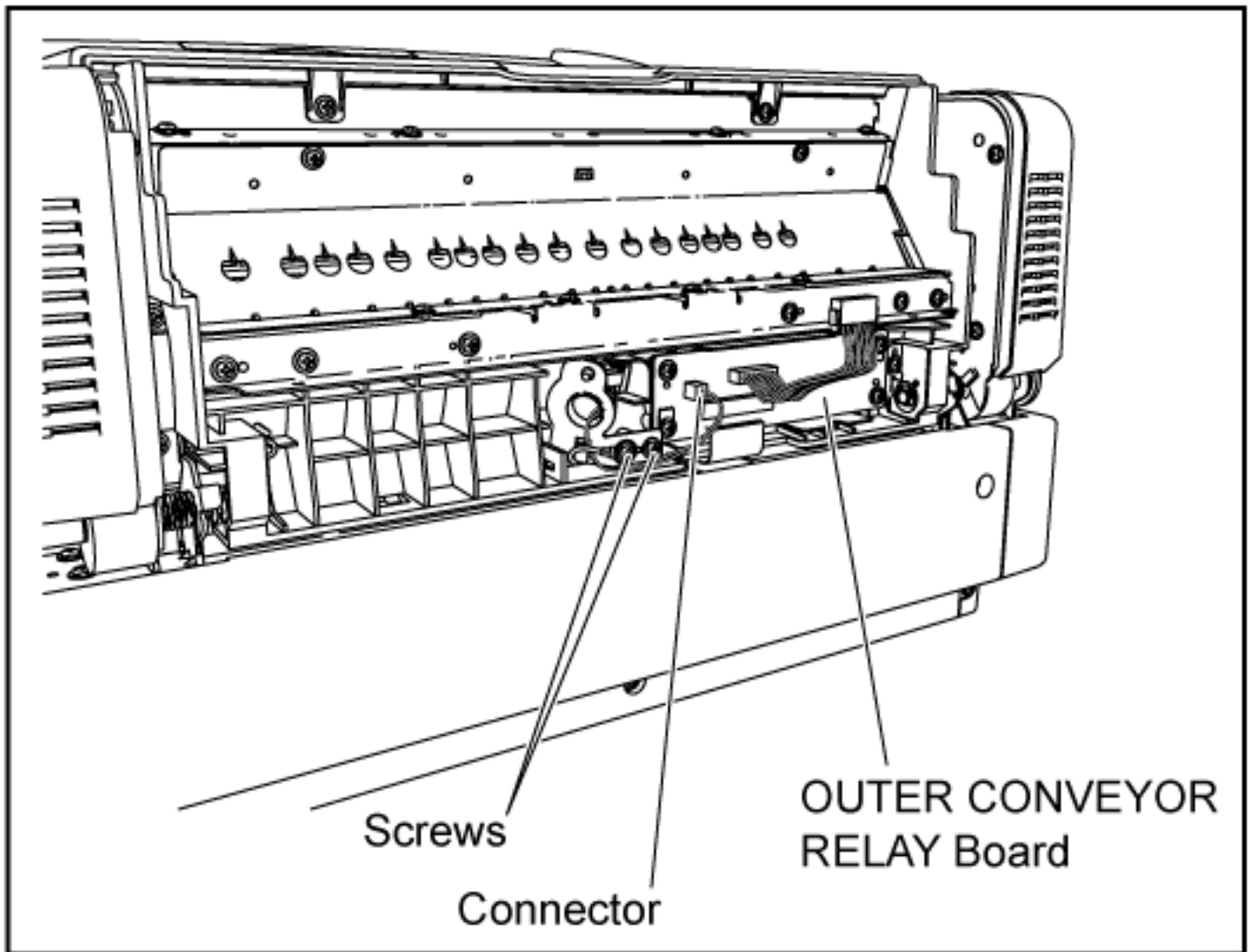
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.2 Double Feed Detector (R)

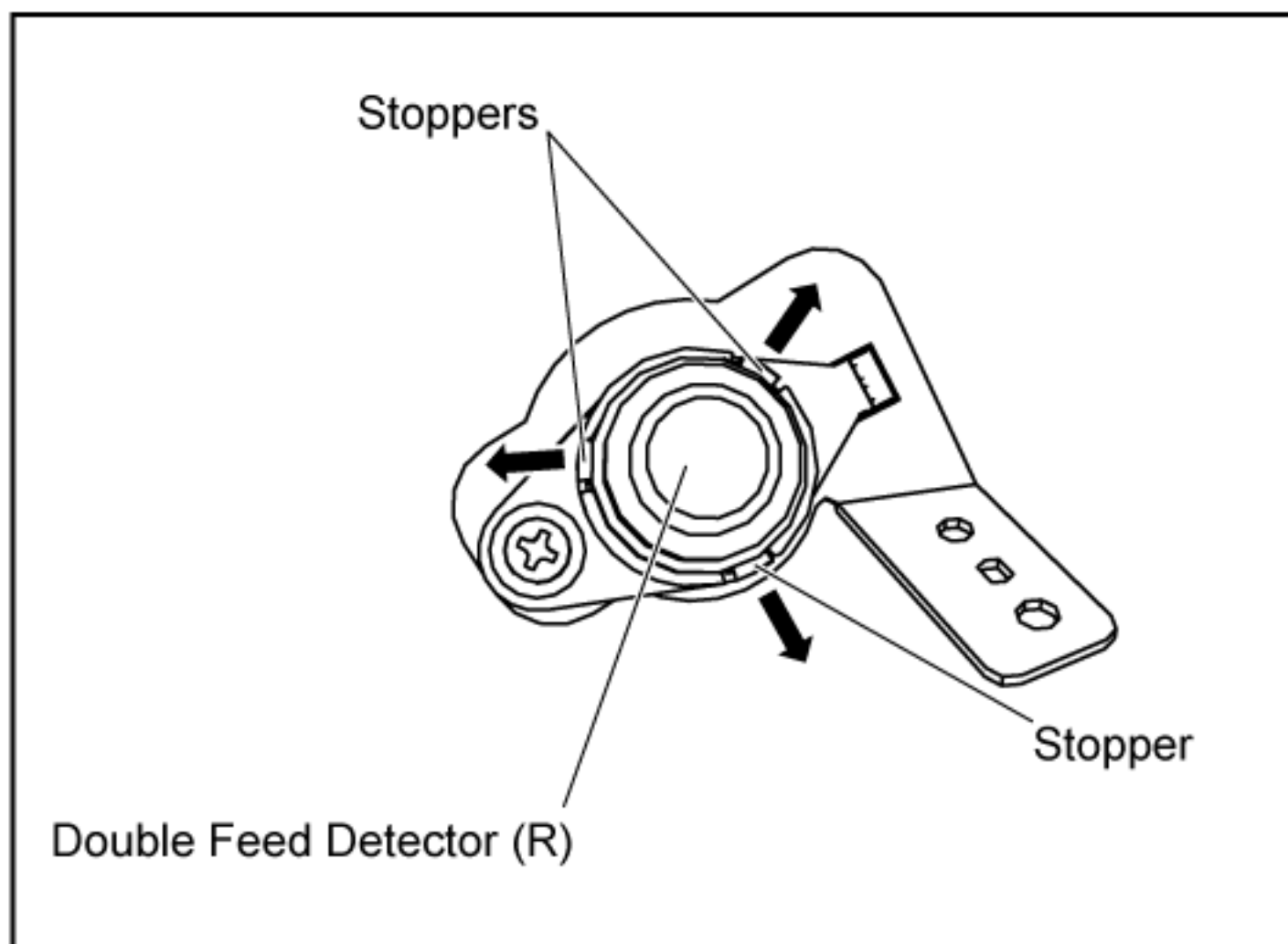
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Imprinter Door. (See 8.3.1.)
2. Remove the 2 screws and 1 connector to the OUTER CONVEYOR RELAY Board.

(Left Side View)



1. Release the stoppers of detector base to remove the Double Feed Detector (R).



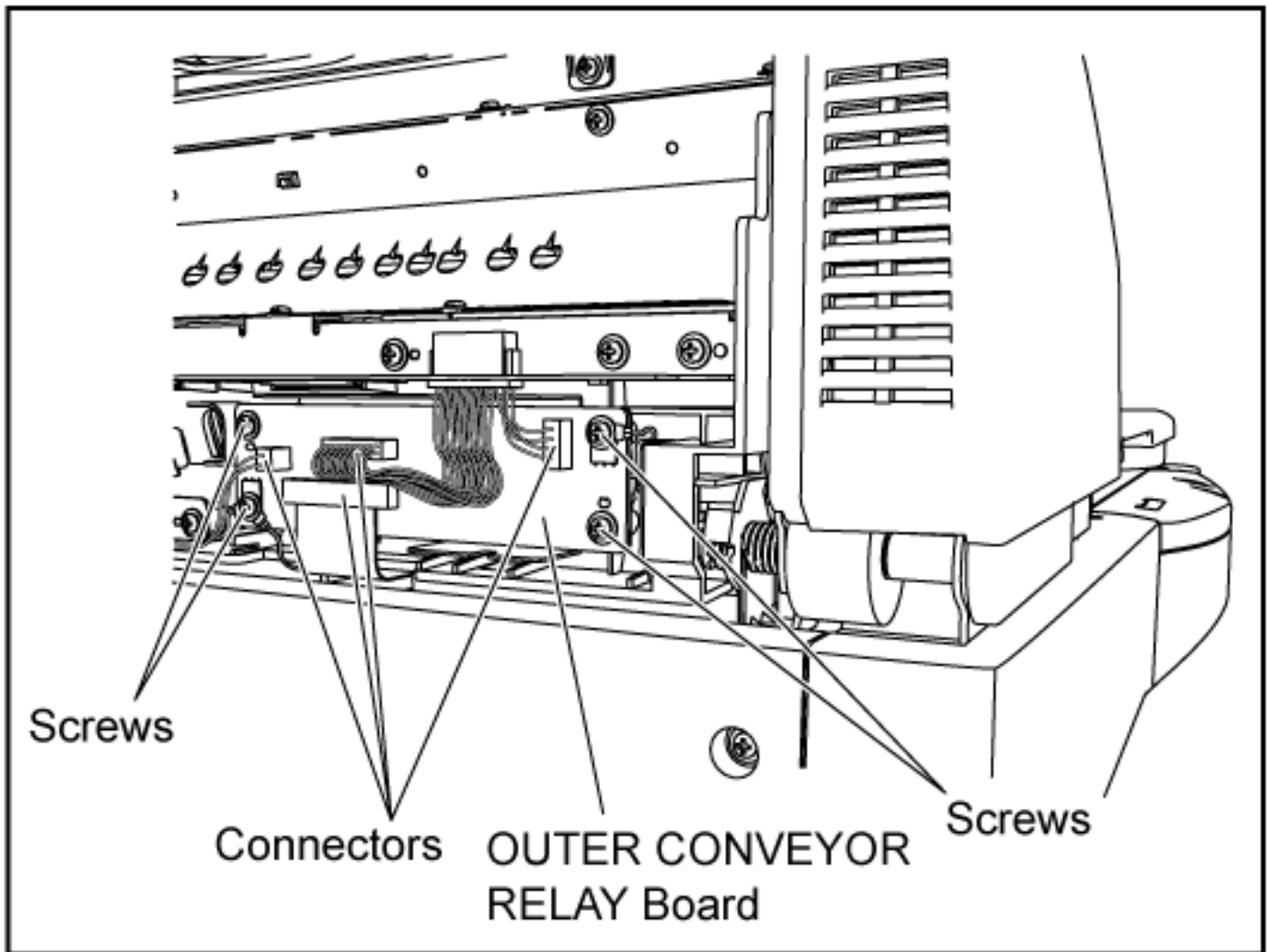
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.3 OUTER CONVEYOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Imprinter Door. (See 8.3.1.)
2. Remove the 4 screws and 4 connectors (CN5001, CN5002, CN5003, CN5004) on the OUTER CONVEYOR RELAY Board.

(Left Side View)

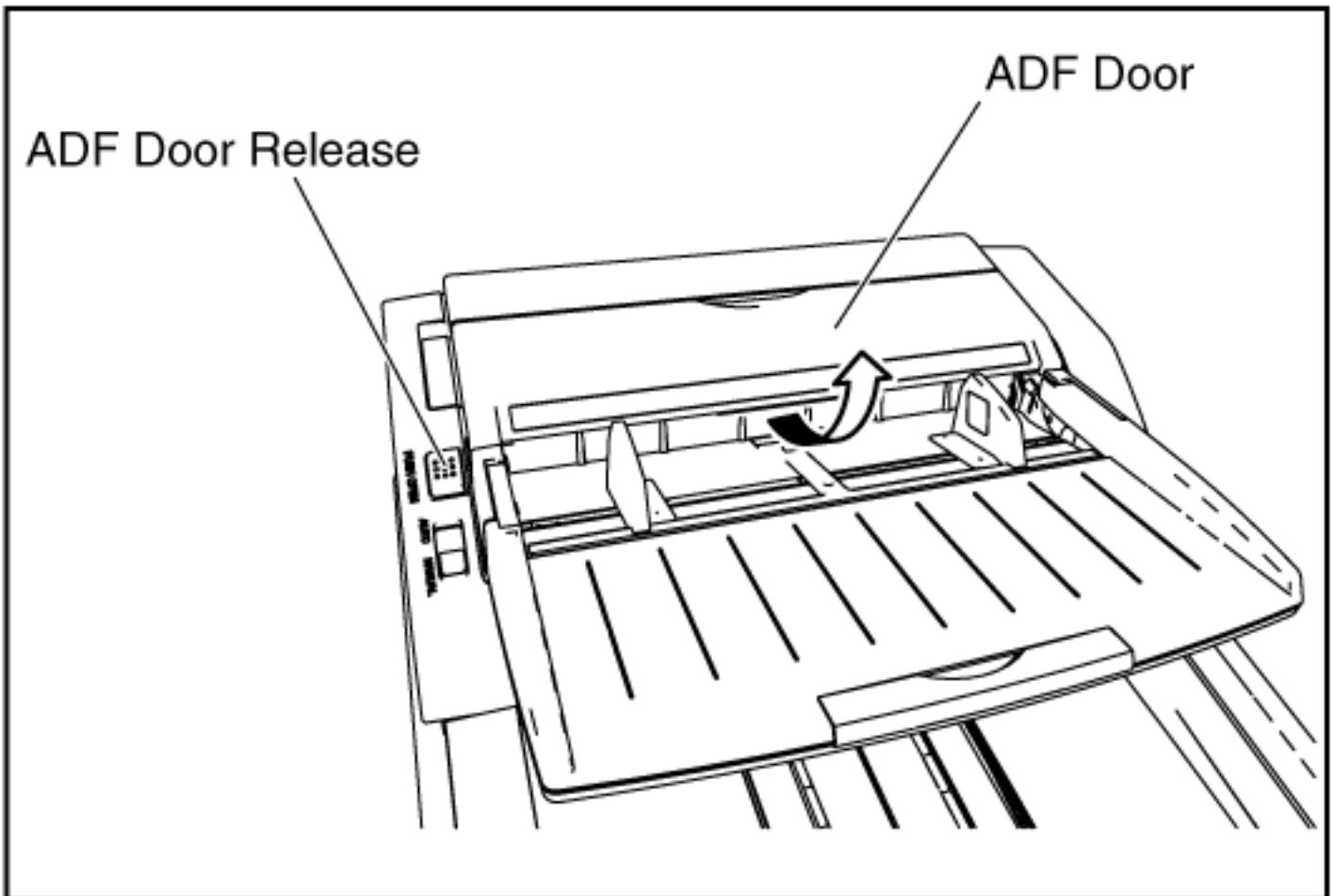


[TOP](#) [PREVIOUS](#) [NEXT](#)

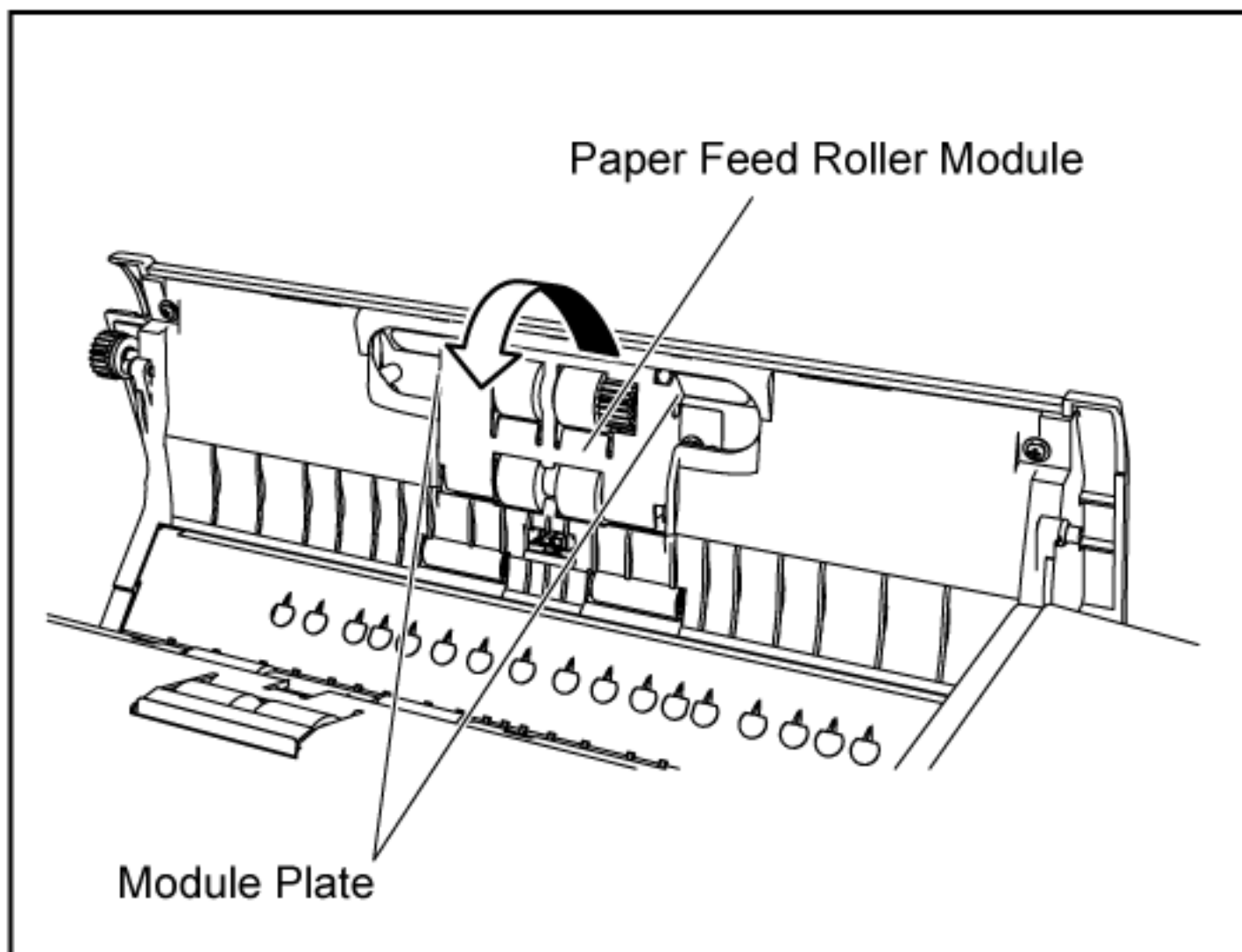
8.3.4 Paper Feed Roller Module

[TOP](#) [PREVIOUS](#) [NEXT](#)

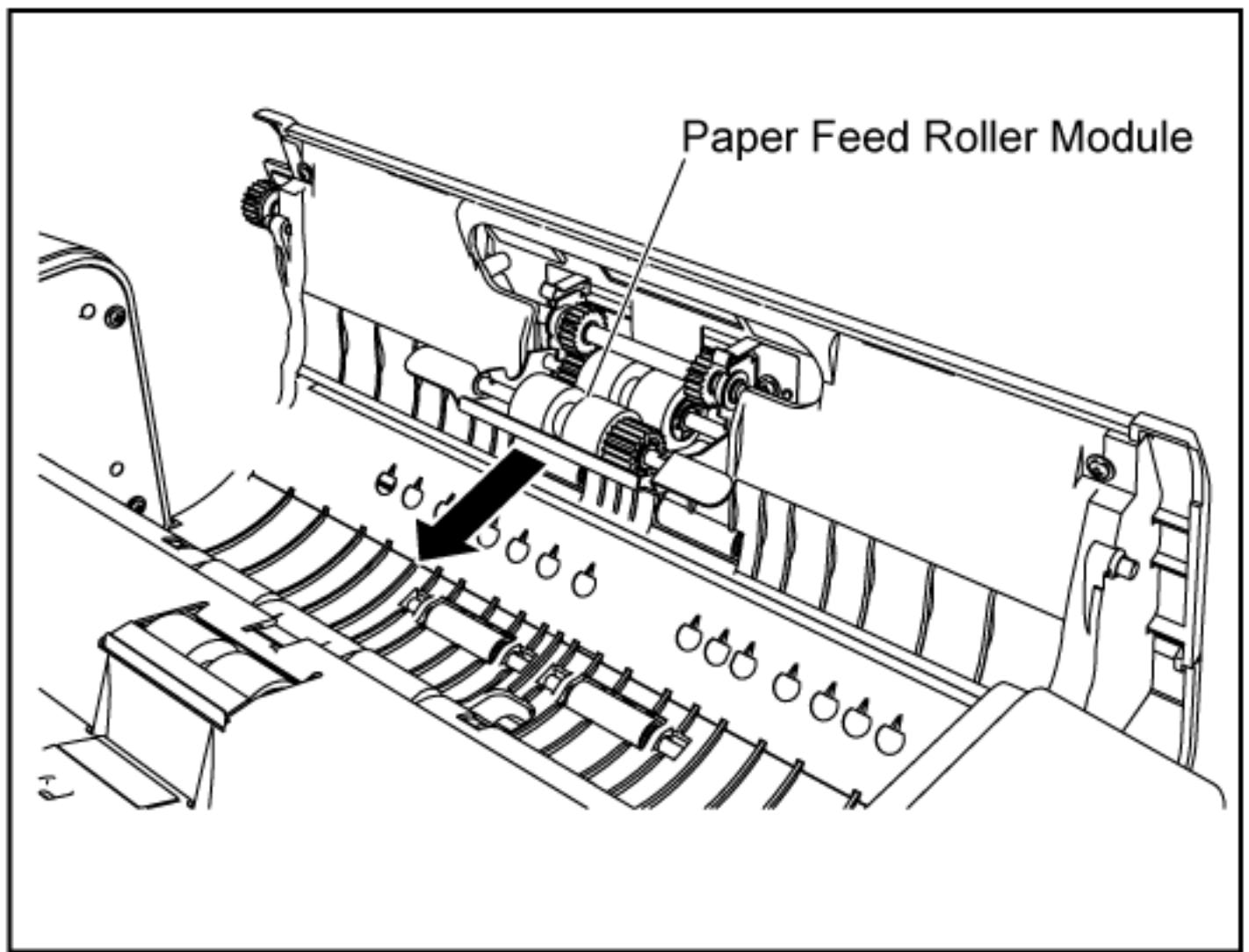
1. Push the ADF Door Release to open the ADF Door.



1. Pull down the Paper Feed Roller Module, holding both sides of the module plate in the direction of the arrows.



1. Remove the module as shown on the figure.

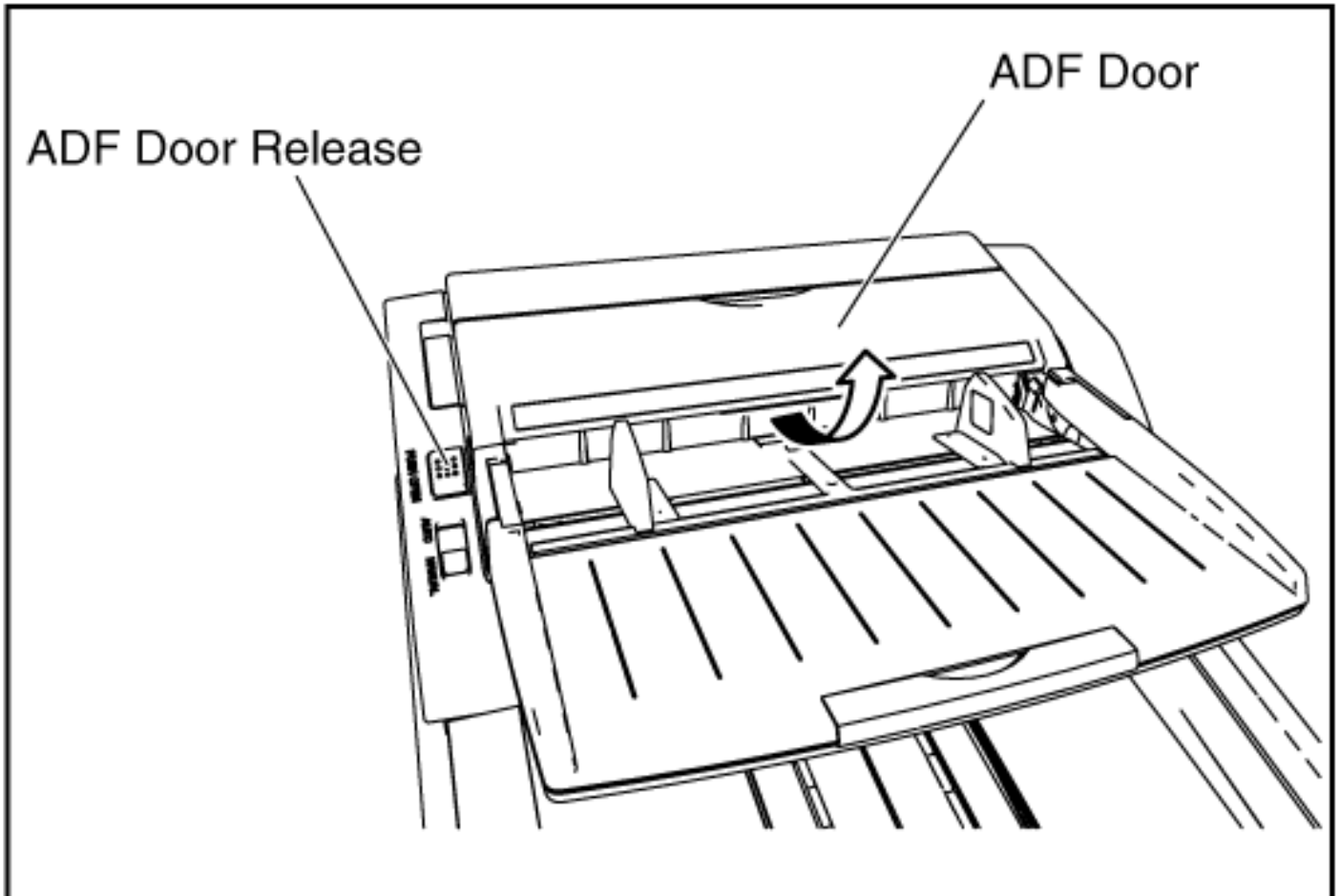


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.5 Retard Roller

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Push the ADF Door Release to open the ADF Door.



1. Open the Retard Conveyor in the direction of the arrow (1).
2. Remove the Retard Roller, pulling up the shaft in the direction of the arrow (2).

Reassembling Note:

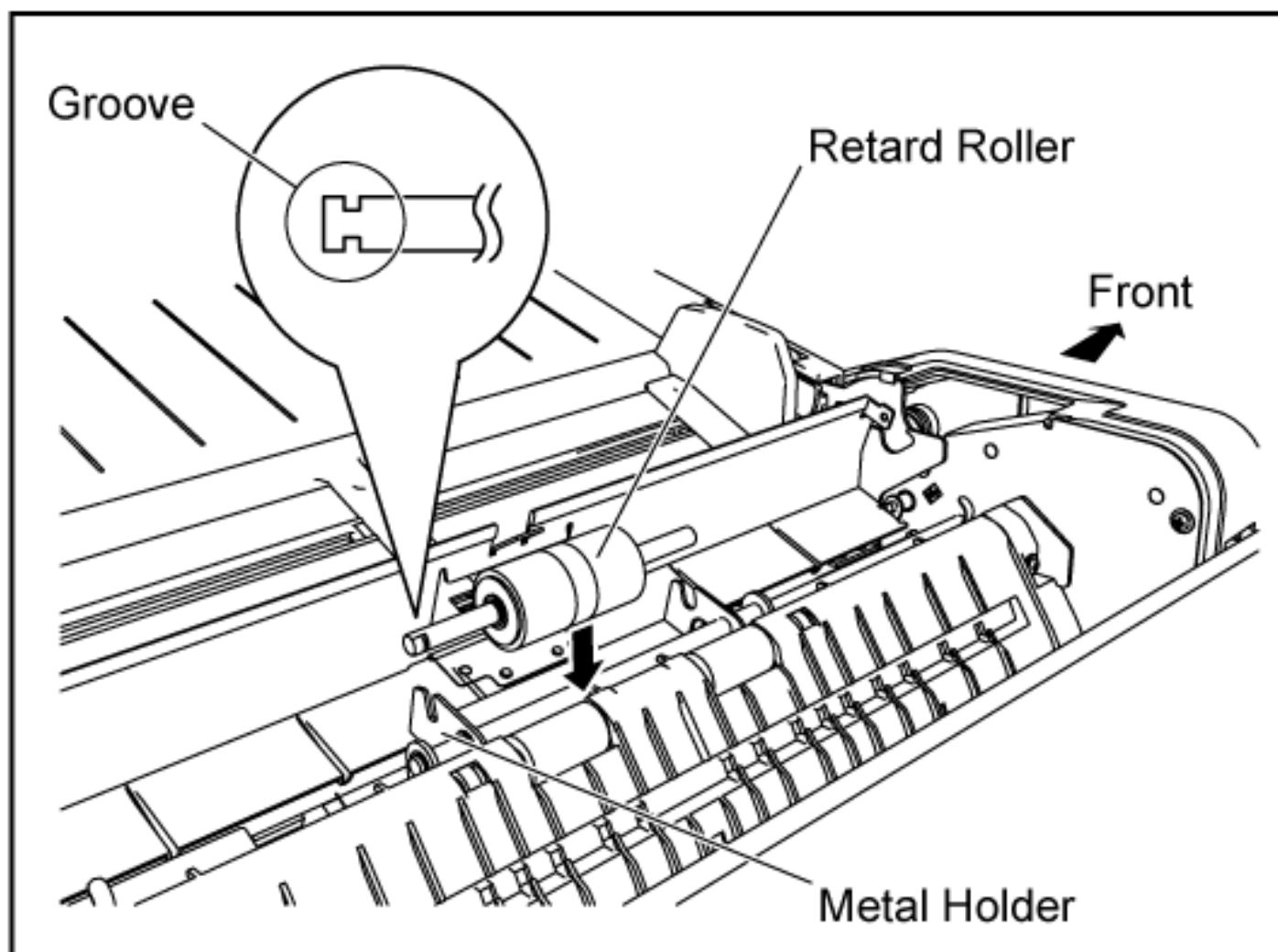
Install the Retard Roller with the groove of its shaft that is located on the back side of the scanner and match the groove to the back side of the metal holder on the scanner.

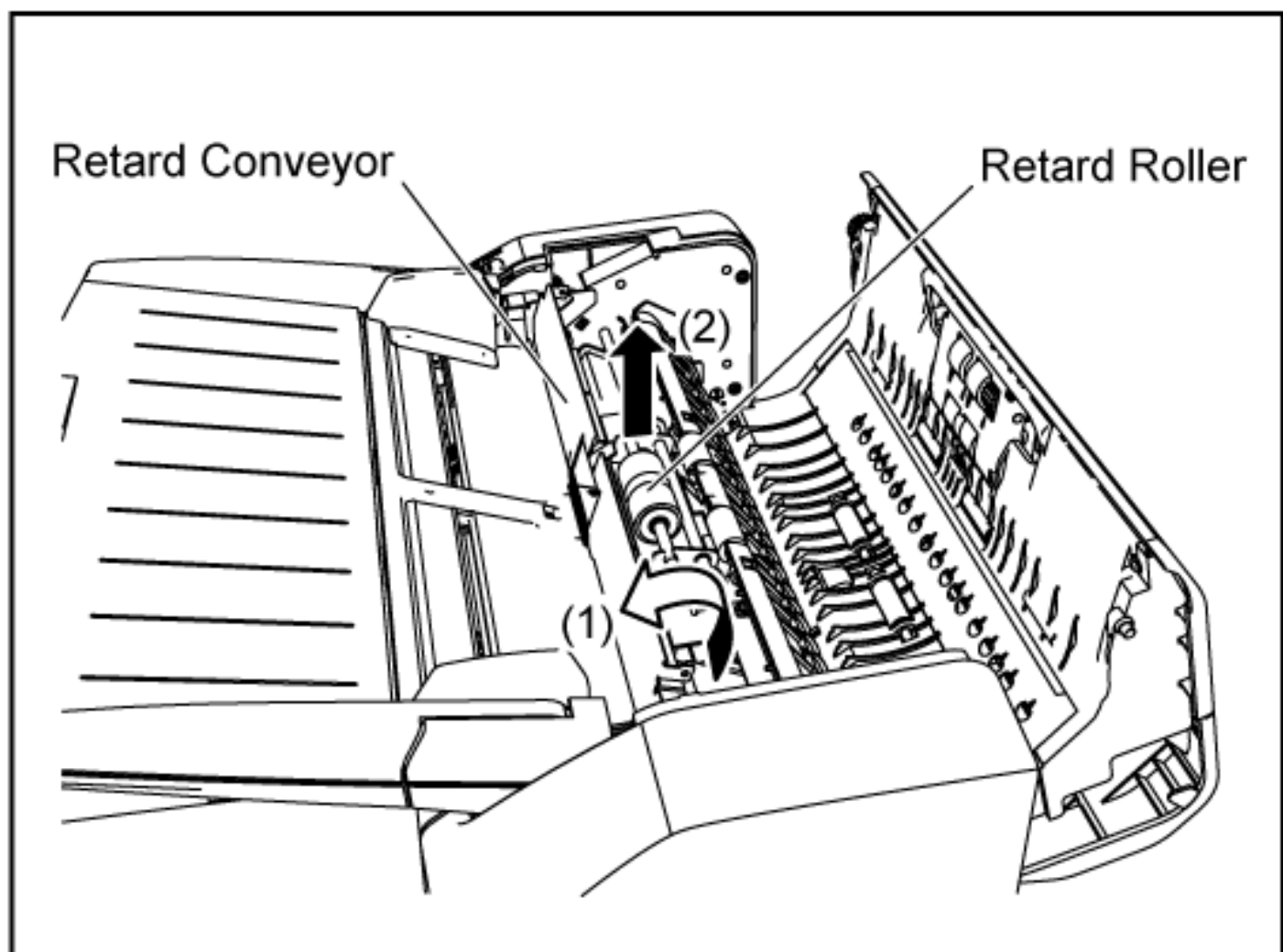
Groove

Retard Roller

Front

Metal Holder



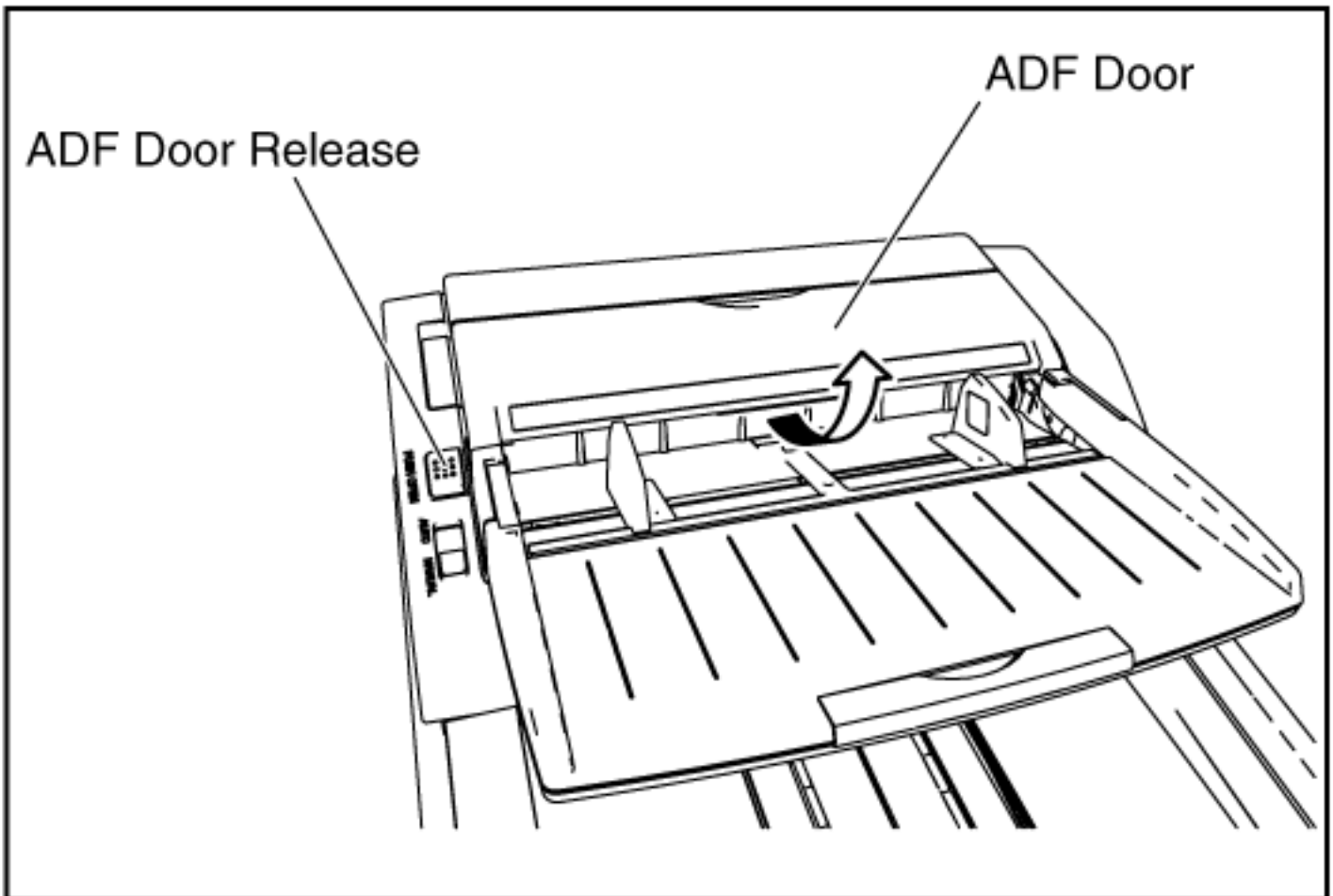


[TOP](#) [PREVIOUS](#) [NEXT](#)

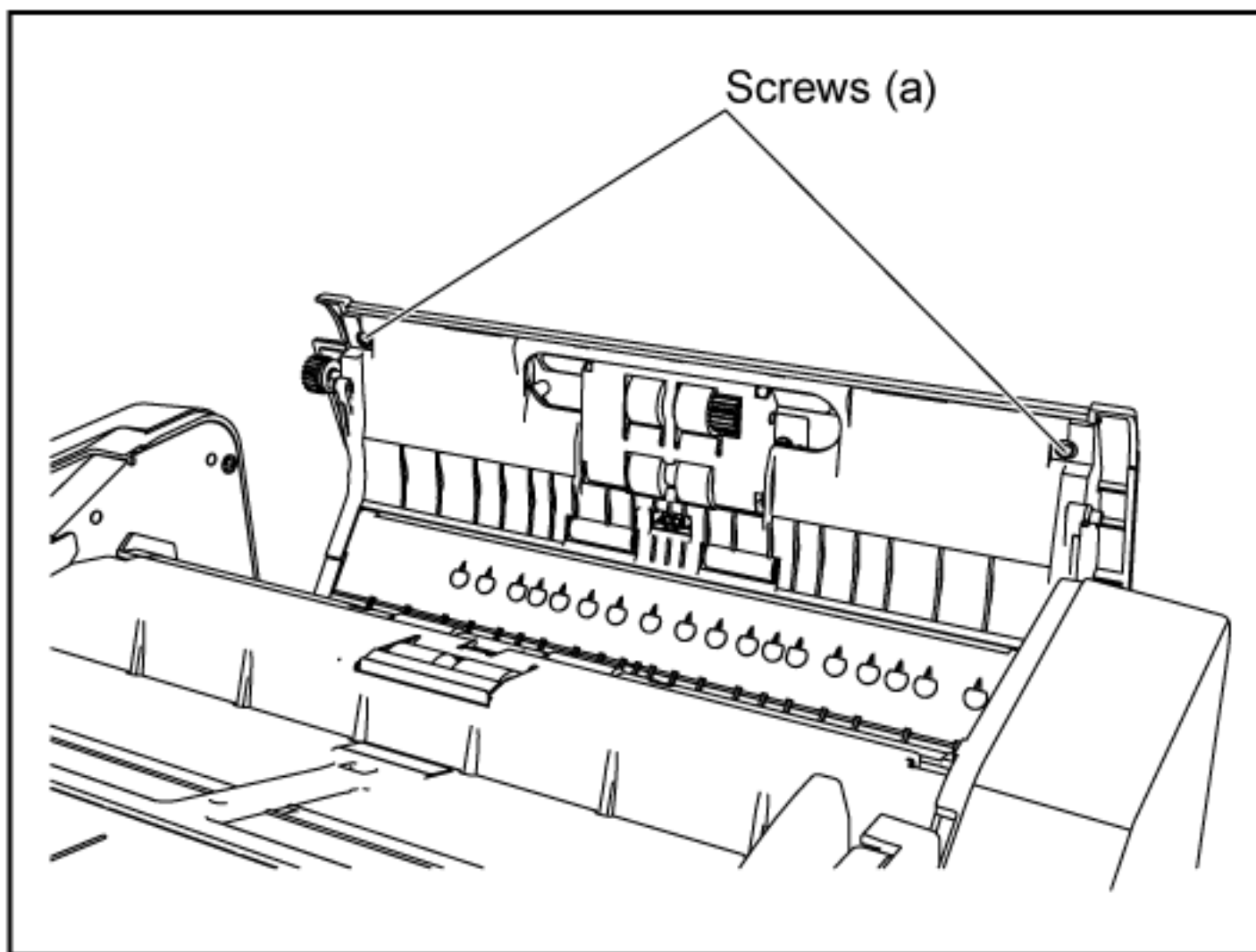
8.3.6 Top Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Push the ADF Door Release to open the ADF Door.

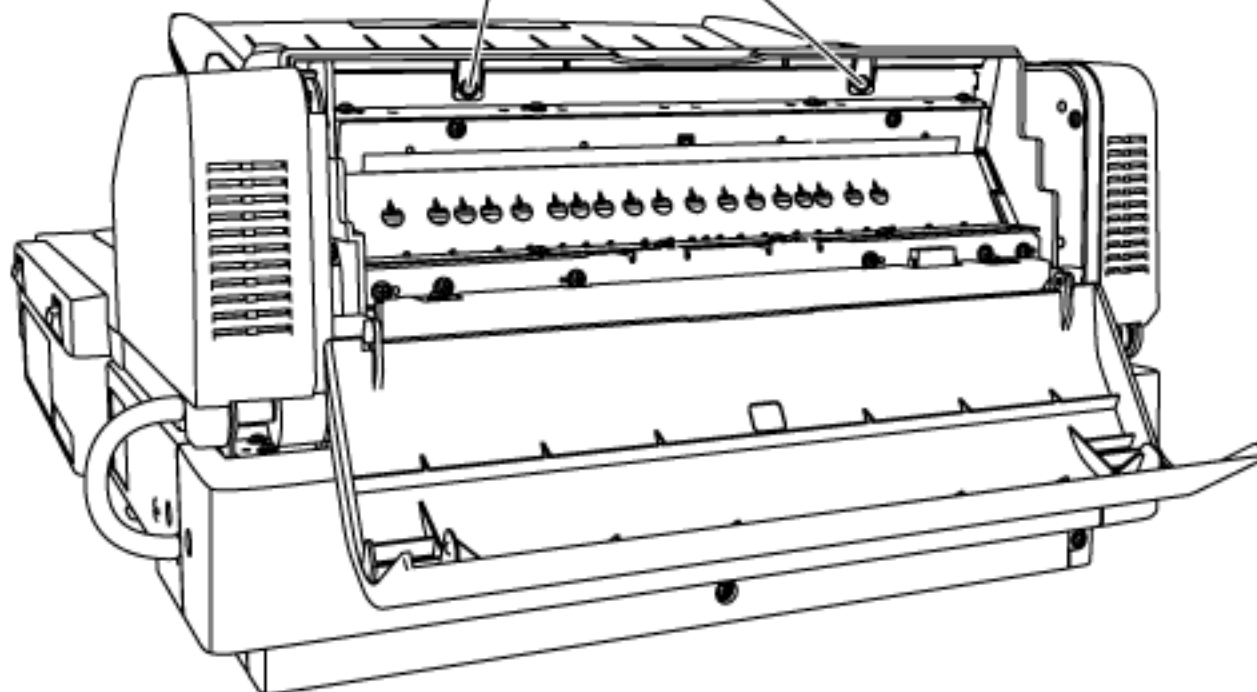


1. Remove the 2 screws (a).



1. Open the Imprinter Door and remove the 2 screws (b).

Screws (b)

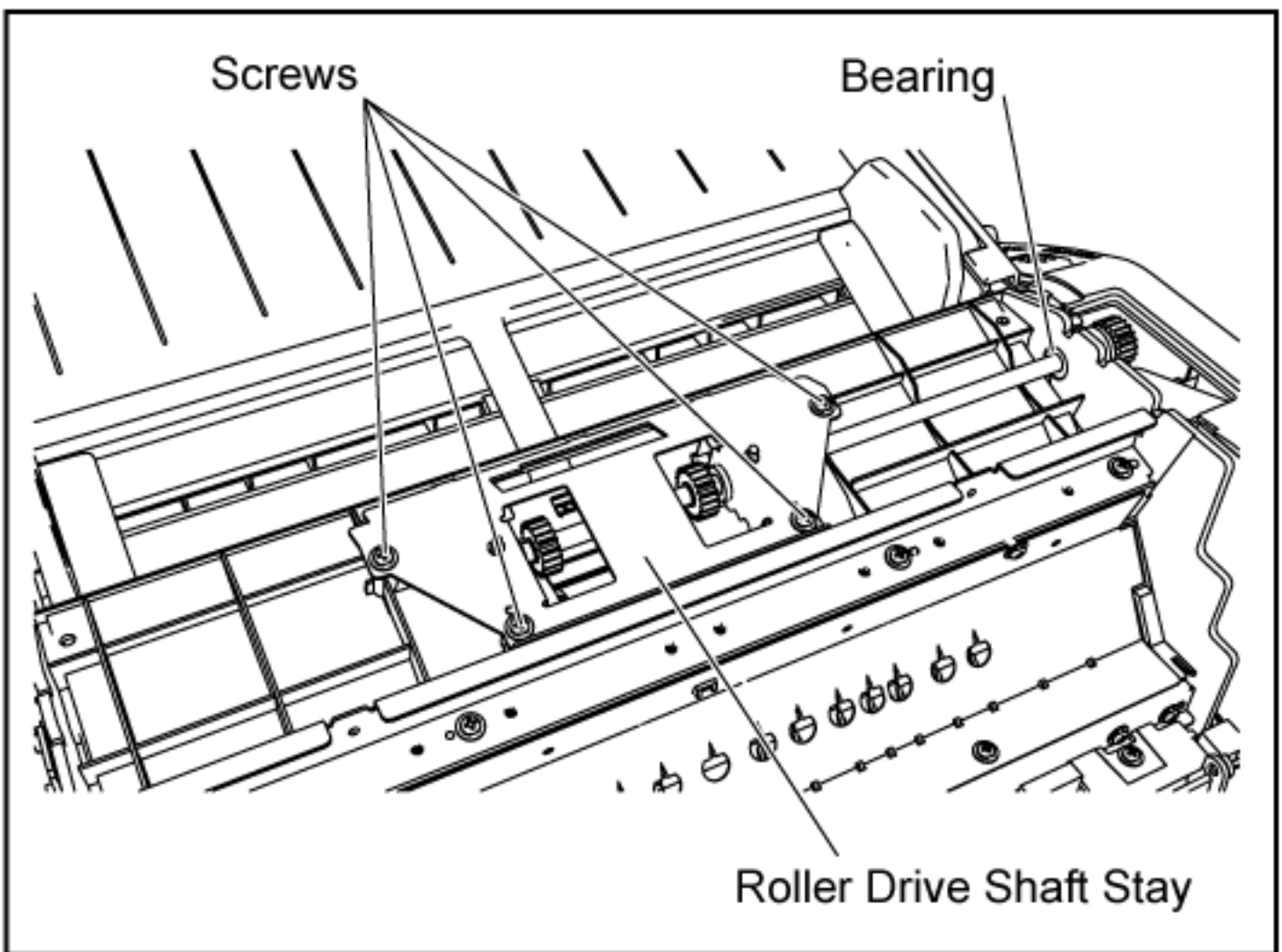


[TOP](#) [PREVIOUS](#) [NEXT](#)

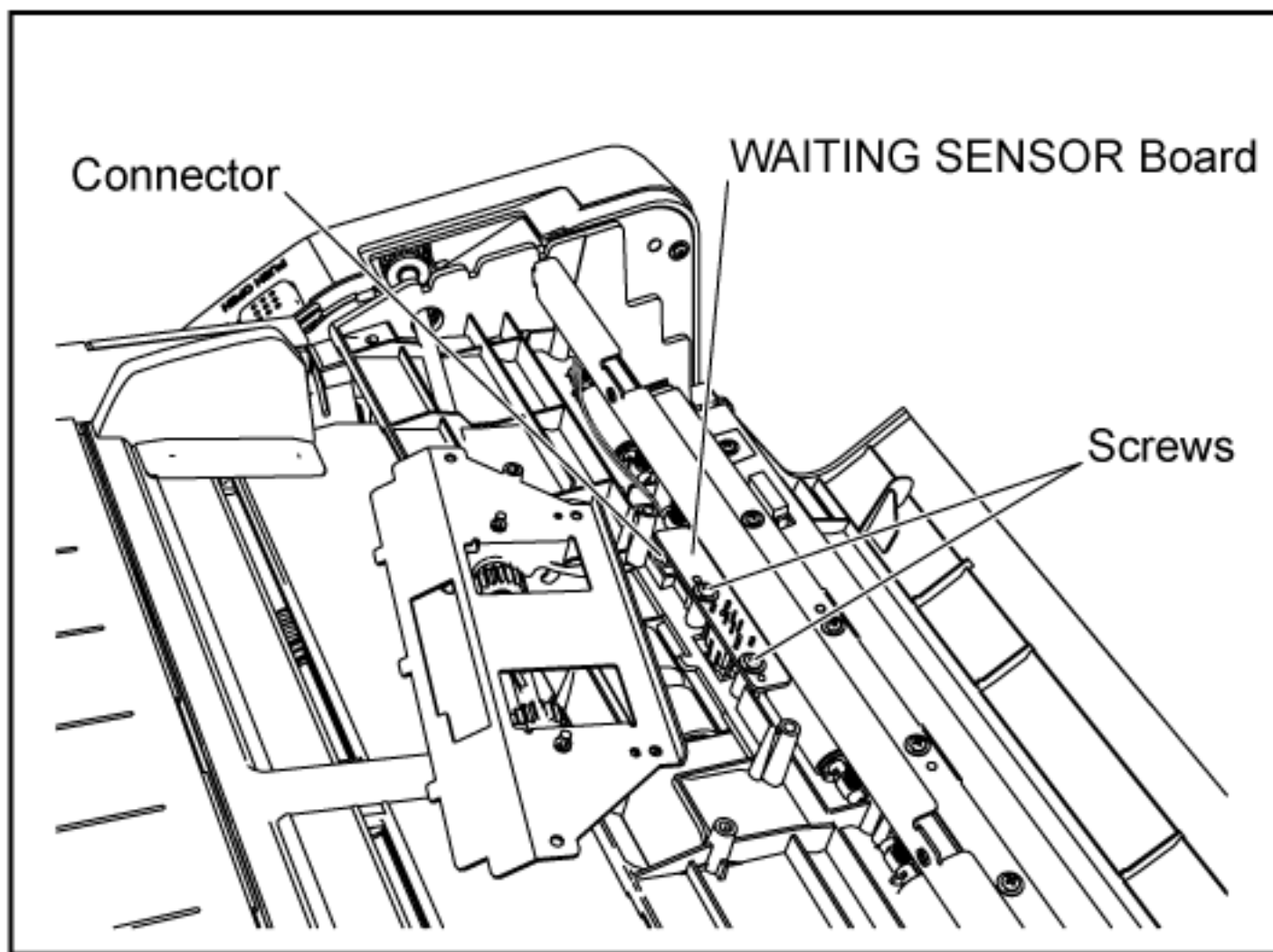
8.3.7 WAITING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Paper Feed Roller Module. (See 8.3.4.)
2. Remove the Top Cover. (See 8.3.6.)
3. Remove the 4 screws on the Roller Drive Shaft Stay.
4. Release the bearing of the roller shaft from the scanner and shift the Roller Drive Shaft Stay so that the WAITING SENSOR Board can be removed.



1. Remove the 2 screws and 1 connector, and release the board from the scanner.

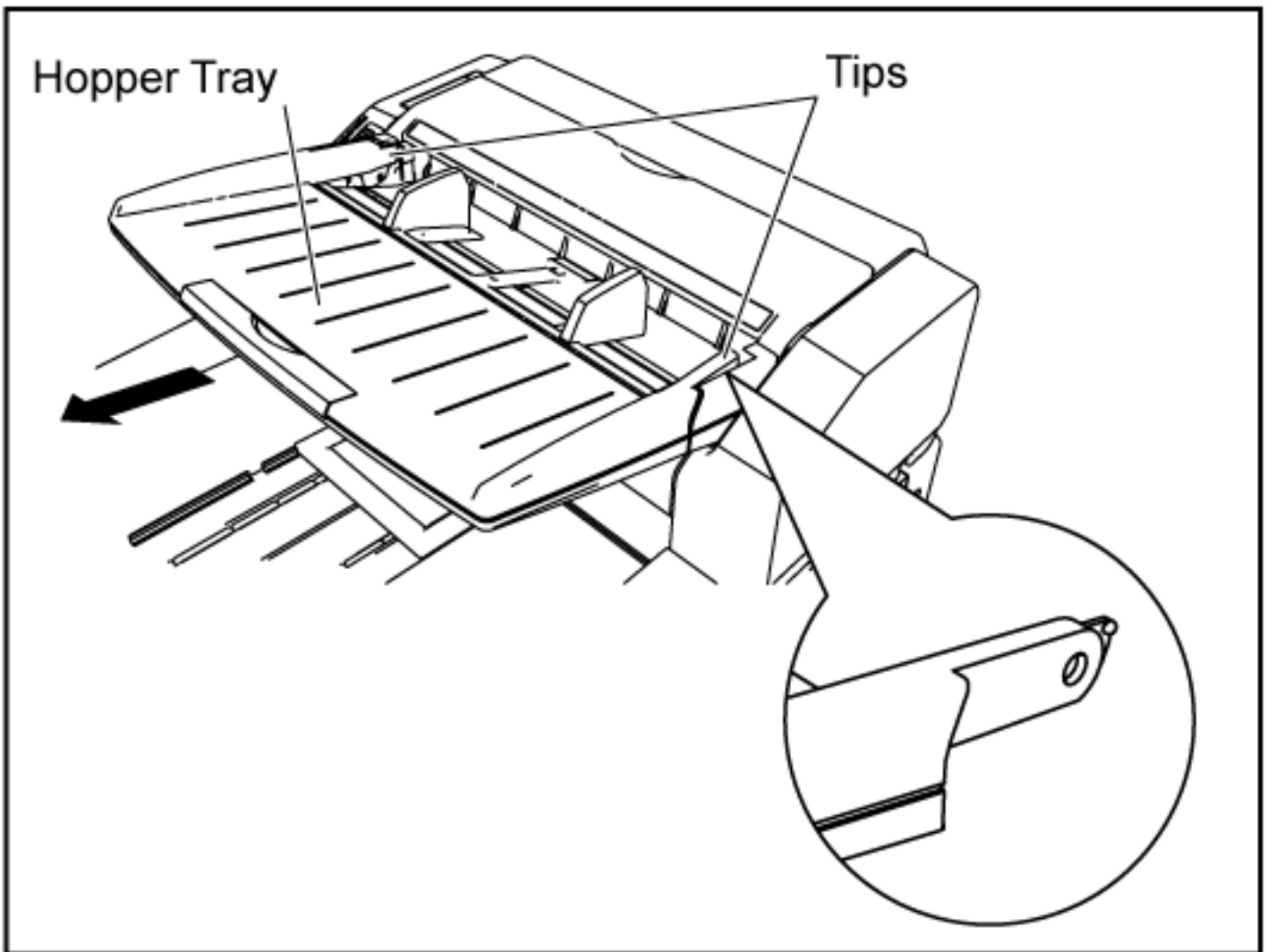


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.8 Hopper Tray

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Unlock the one end tip of the Hopper Tray, distorting the tray.
2. And pull the tray in the direction of the arrow to remove it.



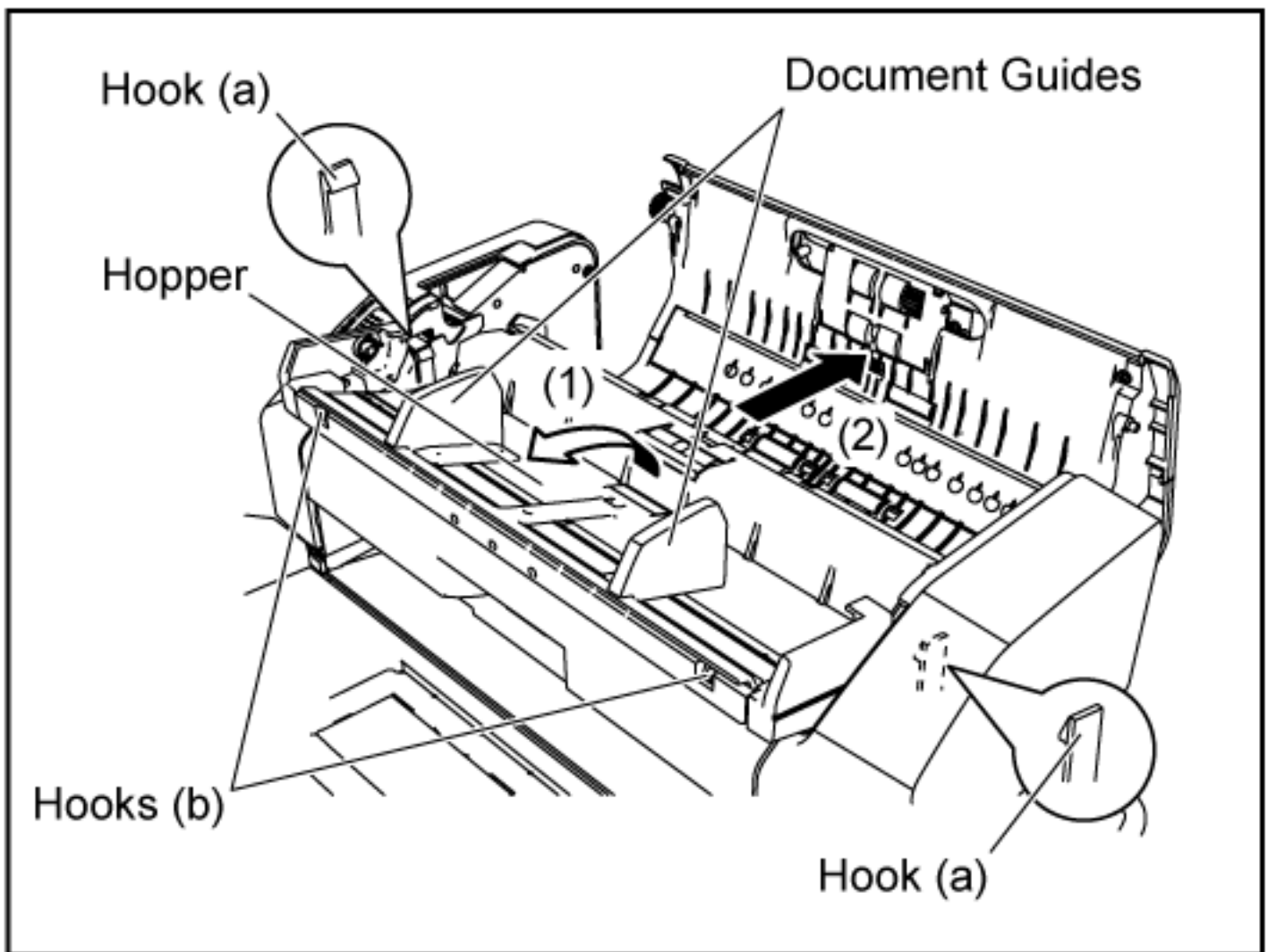
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.9 Hopper

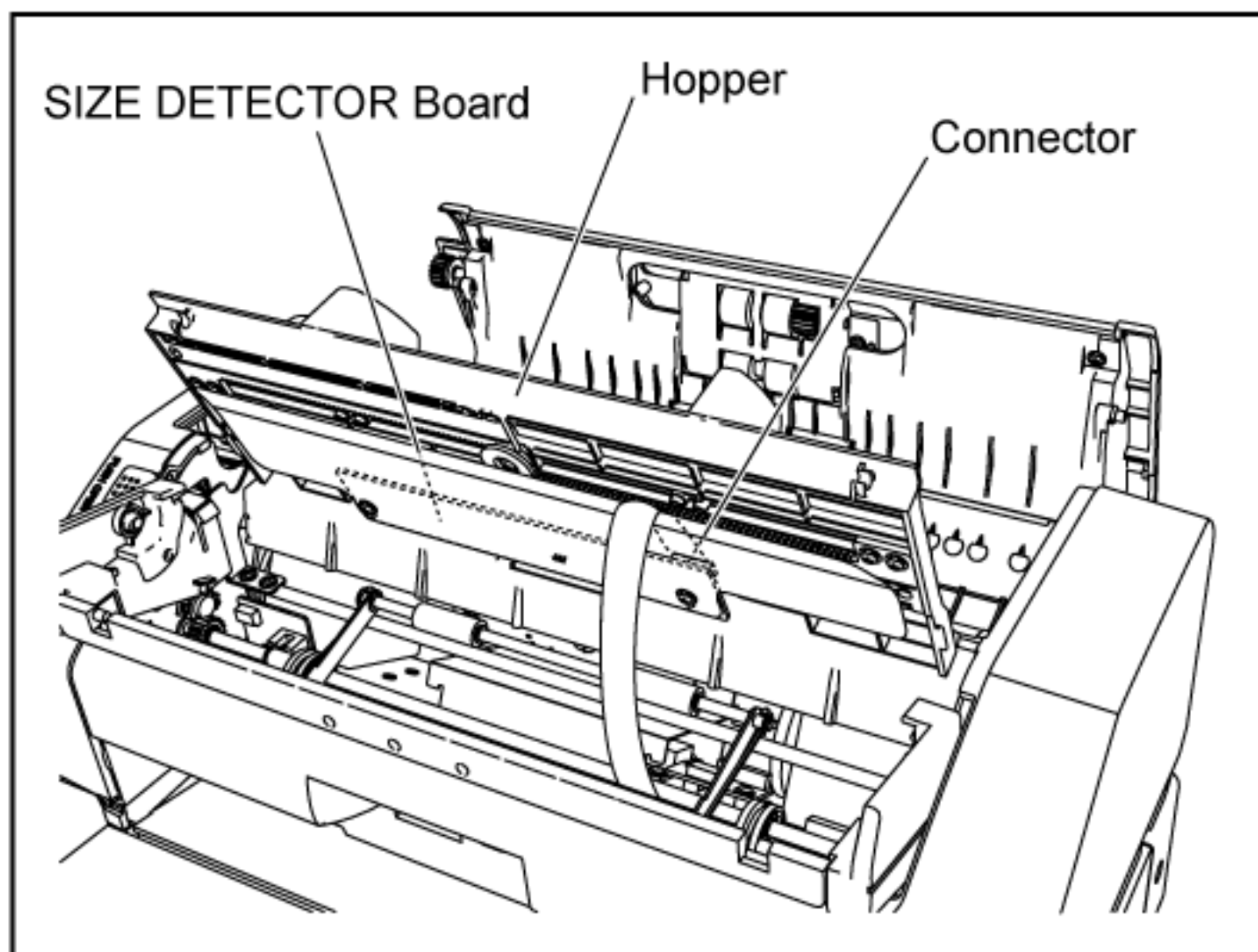
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper Tray. (See 8.3.8.)
2. Lift up the Hopper in the direction of the arrow (1) and unlock it from the hooks (a) on the both sides, holding the Document Guides. And unlock the hooks (b) and pull out it in the direction of the arrow (2).

(TopBack View)



1. Remove the 1 connector (CN5010) to separate the Hopper from the scanner.

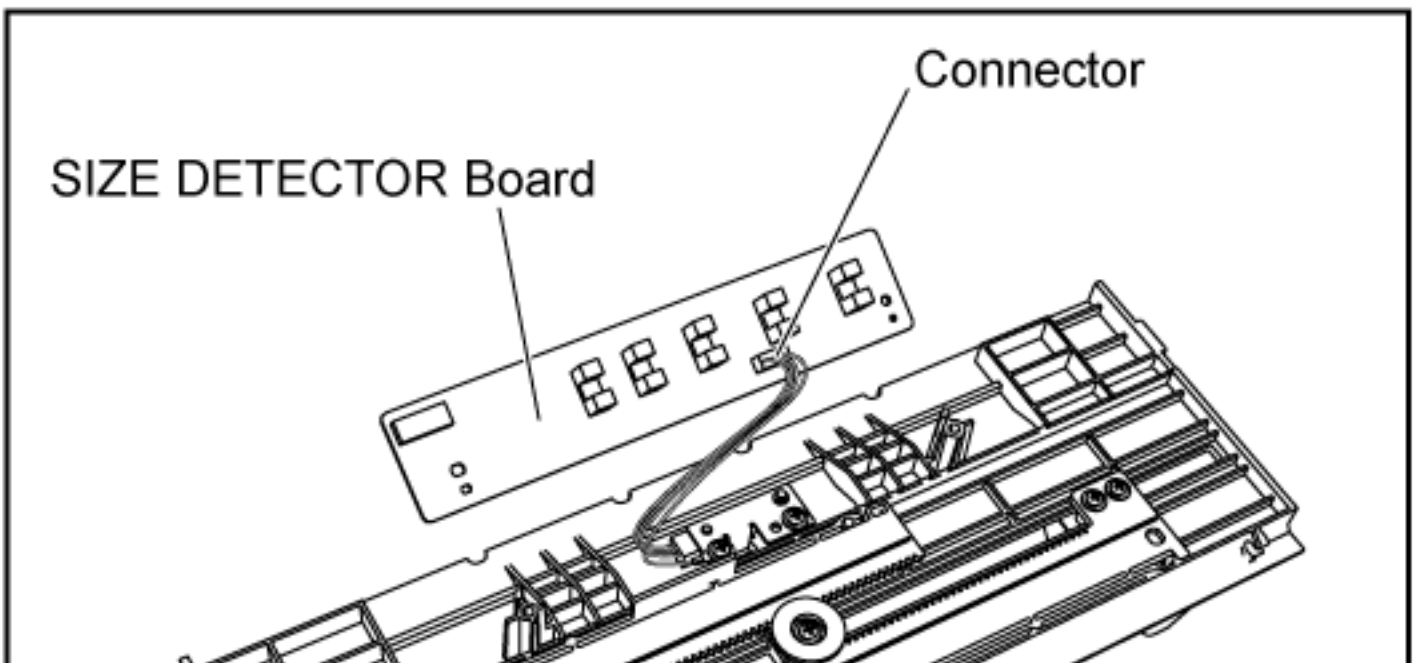
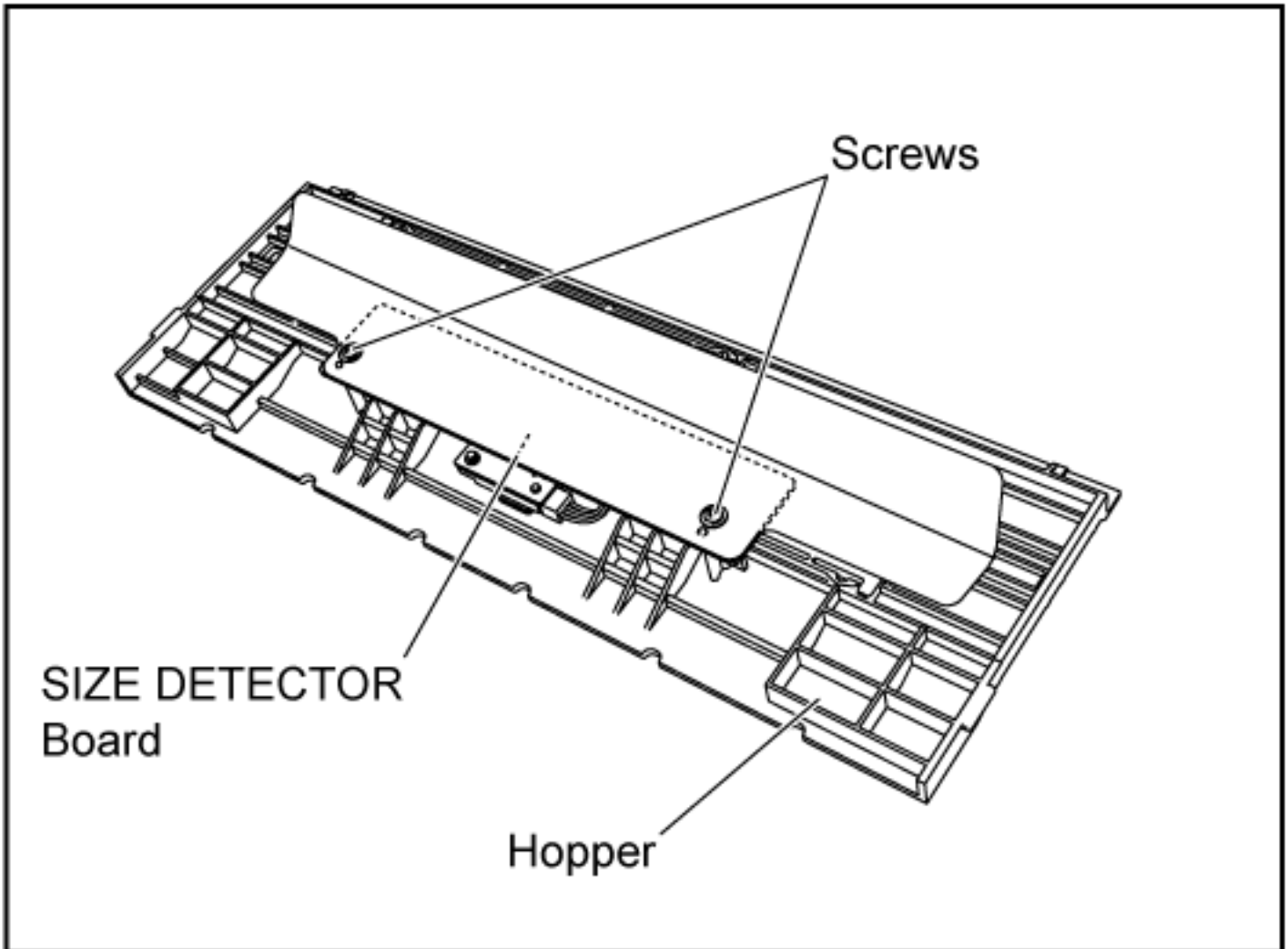


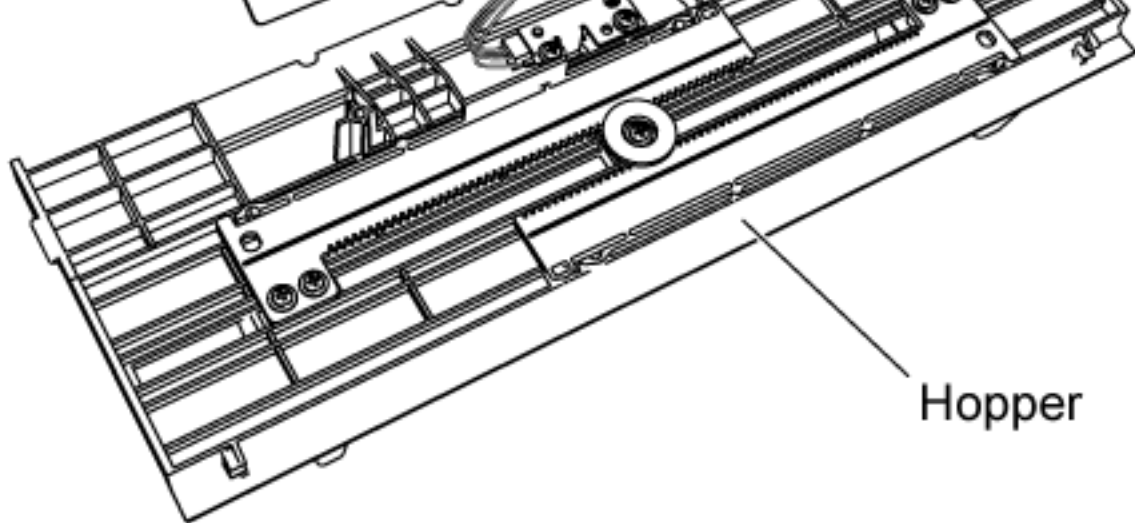
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.10 SIZE DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Remove the 2 screws and 1 connector (CN5011) on the SIZE DETECTOR Board.



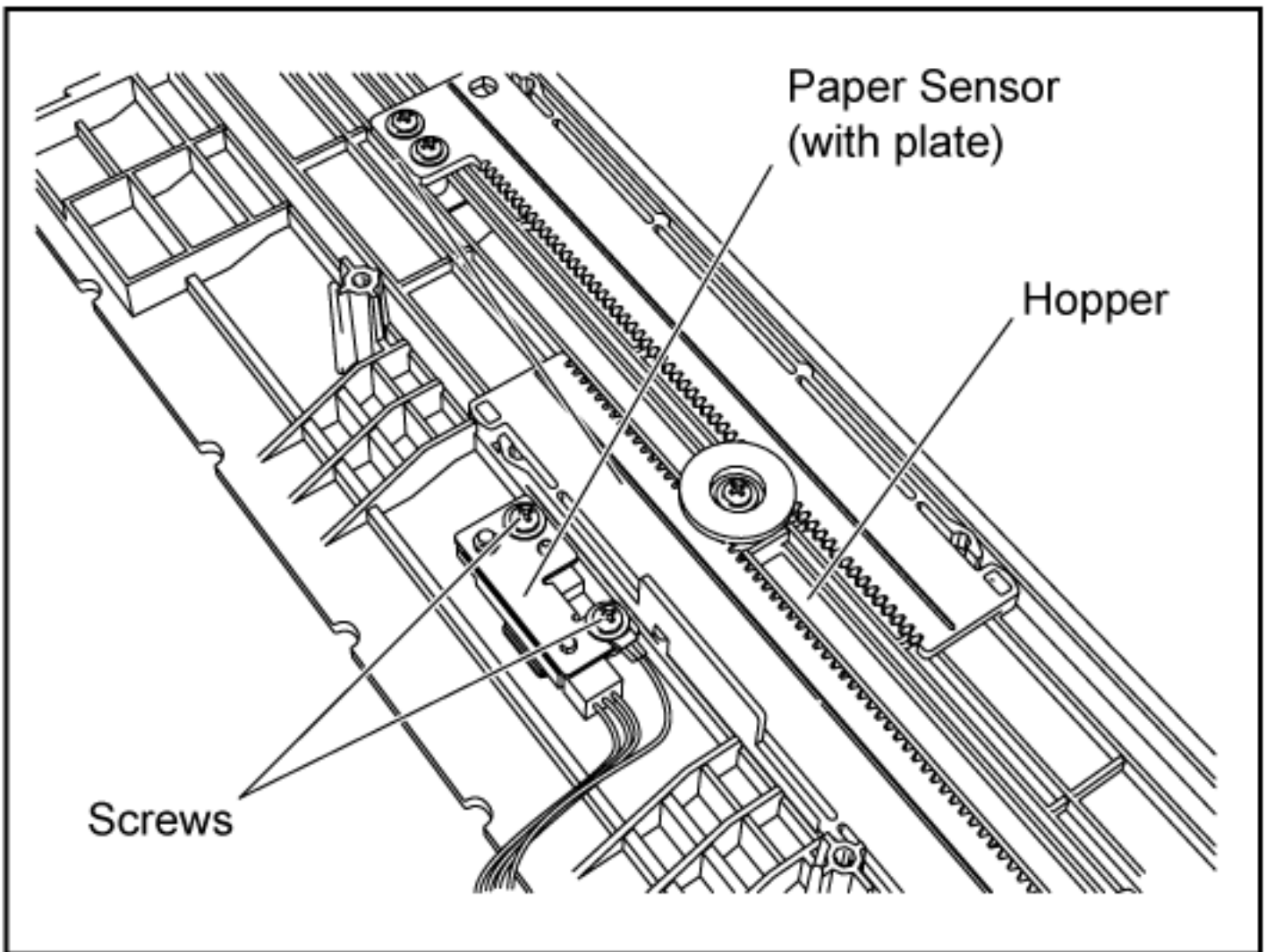


[TOP](#) [PREVIOUS](#) [NEXT](#)

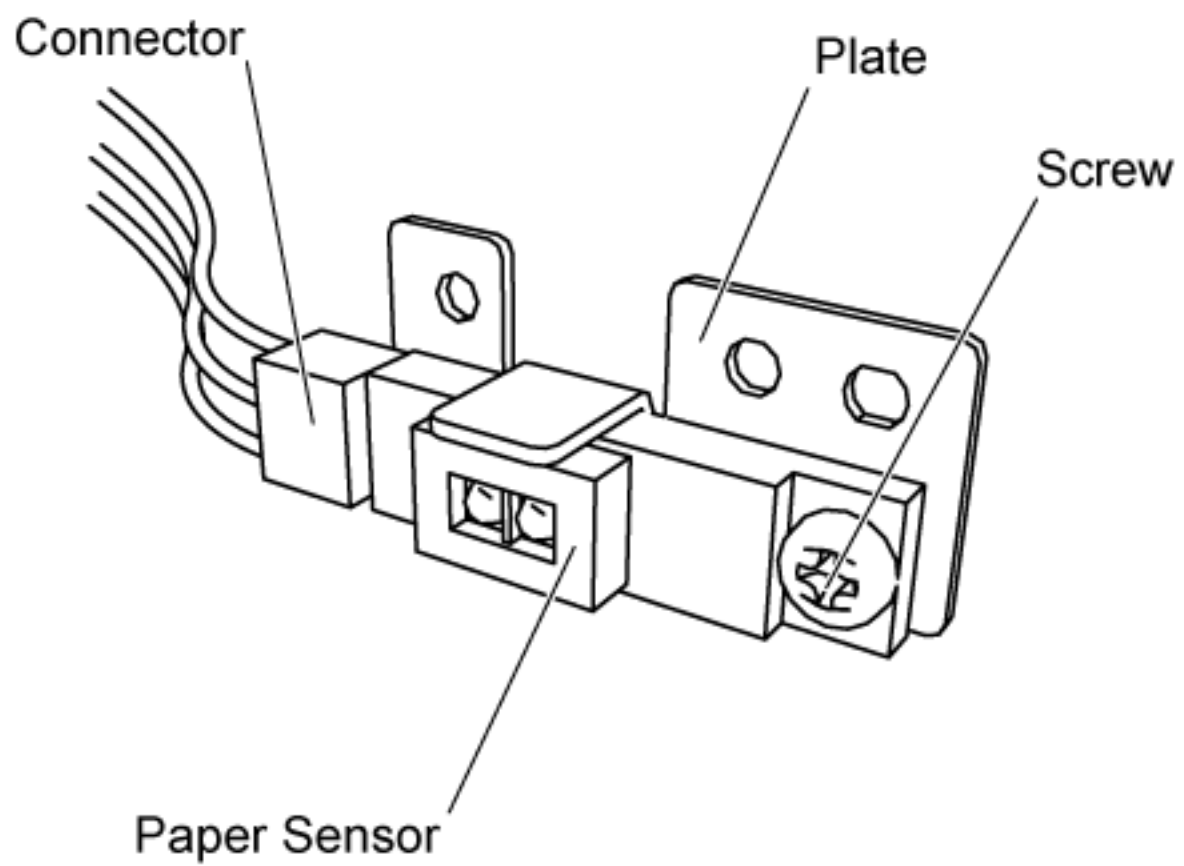
8.3.11 Paper Sensor

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the SIZE DETECTOR Board. (See 8.3.10.)
2. Remove the 2 screws to release the Paper Sensor with plate from the Hopper.



1. Remove the 1 screw and 1 connector to separate the sensor from the plate.

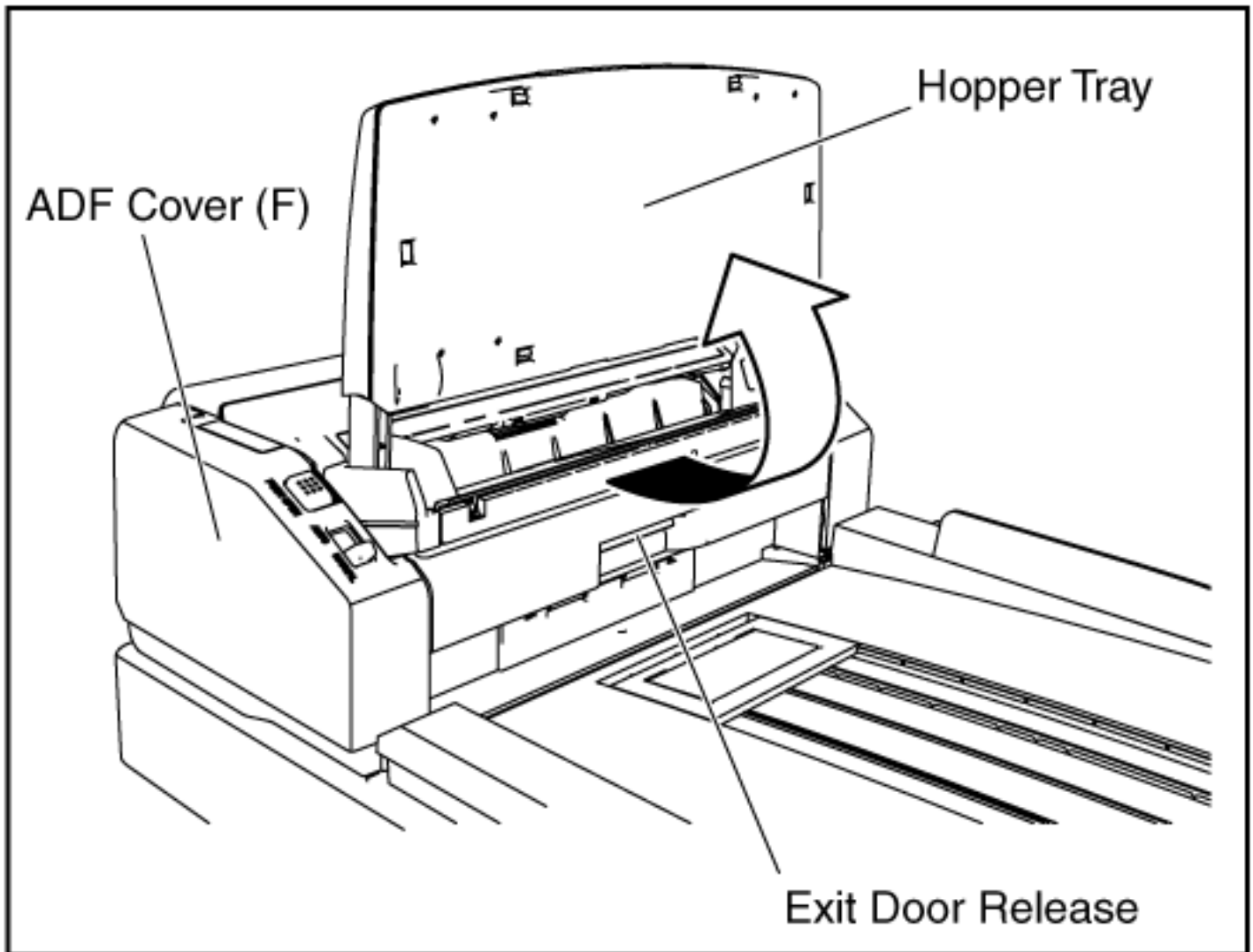


[TOP](#) [PREVIOUS](#) [NEXT](#)

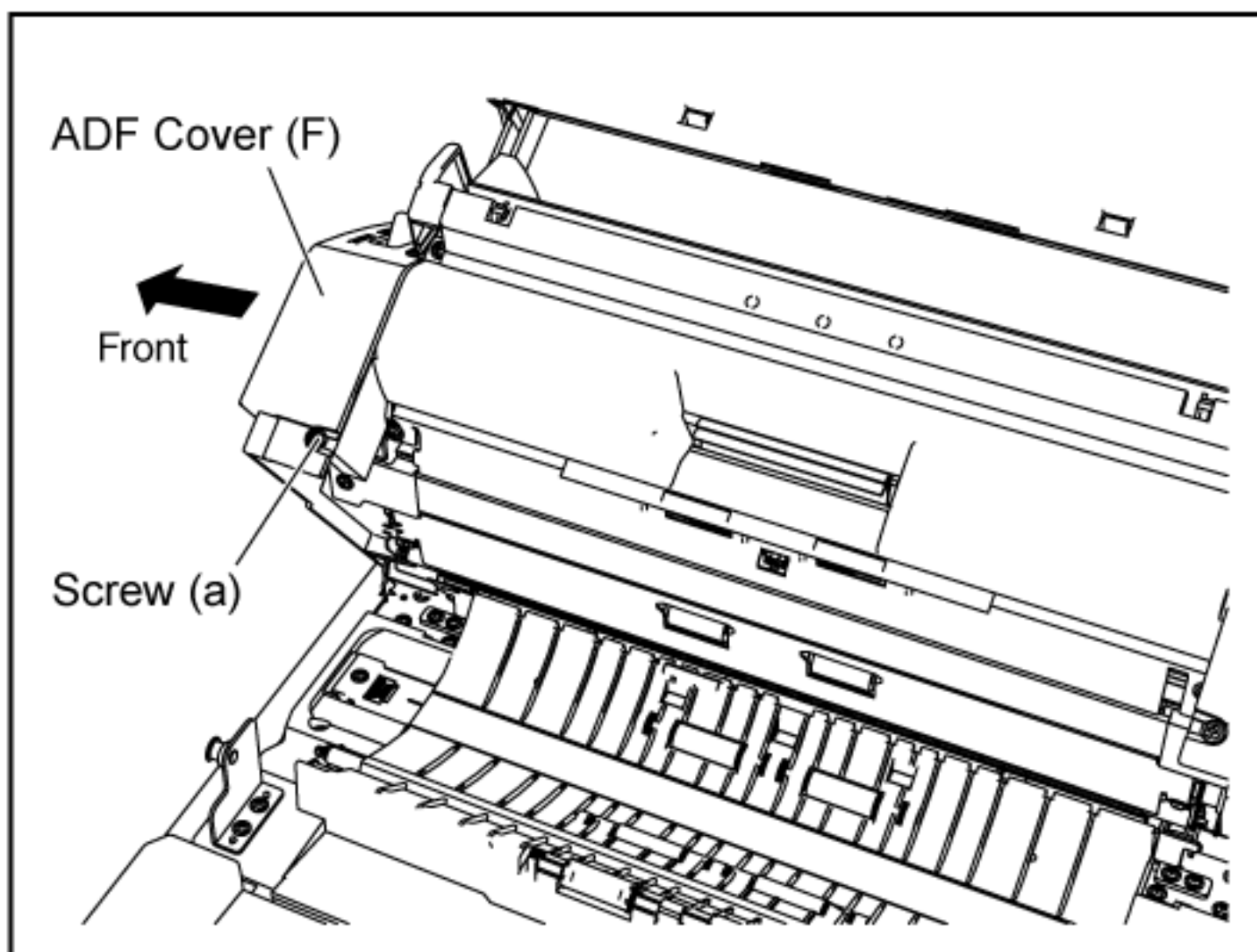
8.3.12 ADF Cover (F)

[TOP](#) [PREVIOUS](#) [NEXT](#)

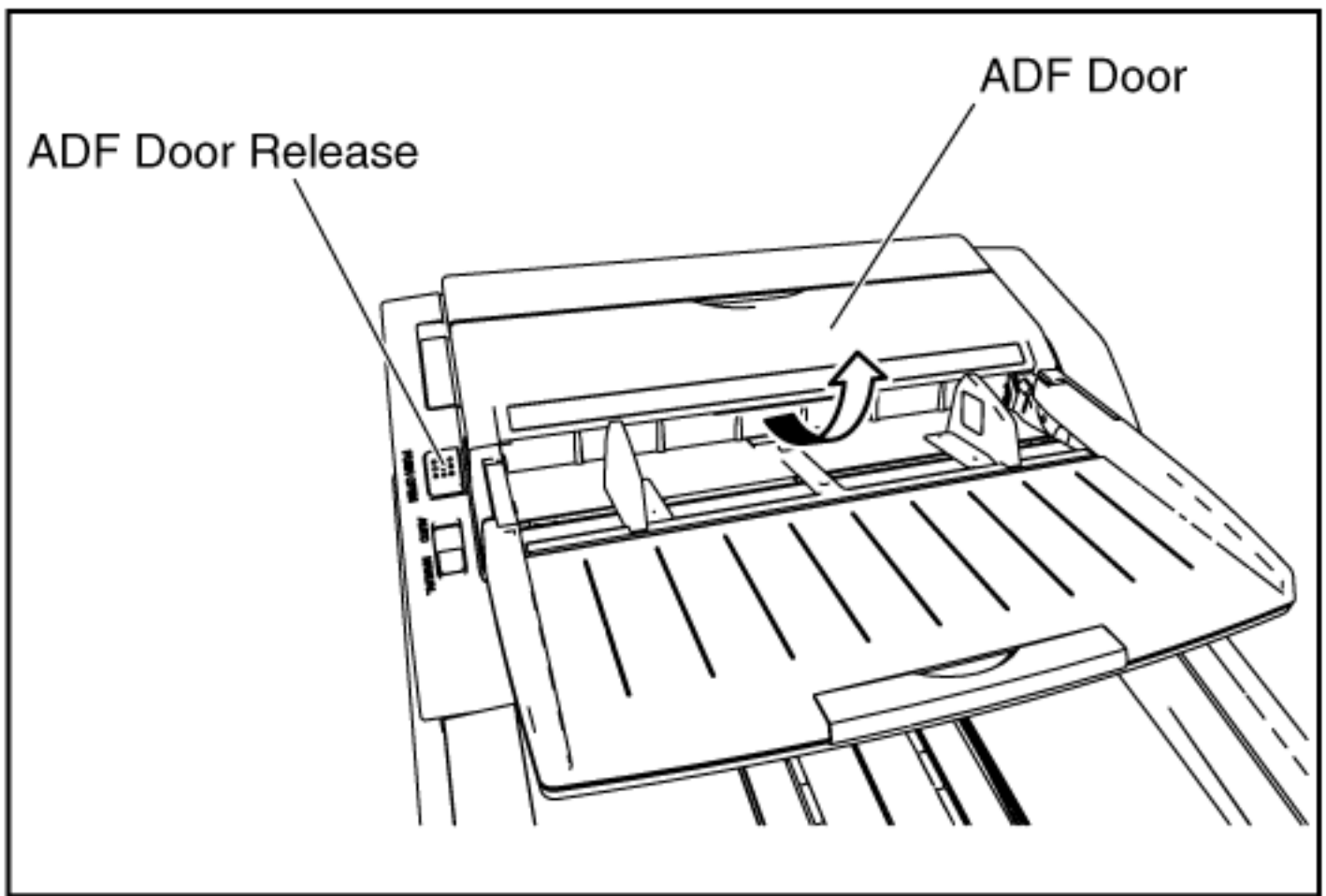
1. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door.



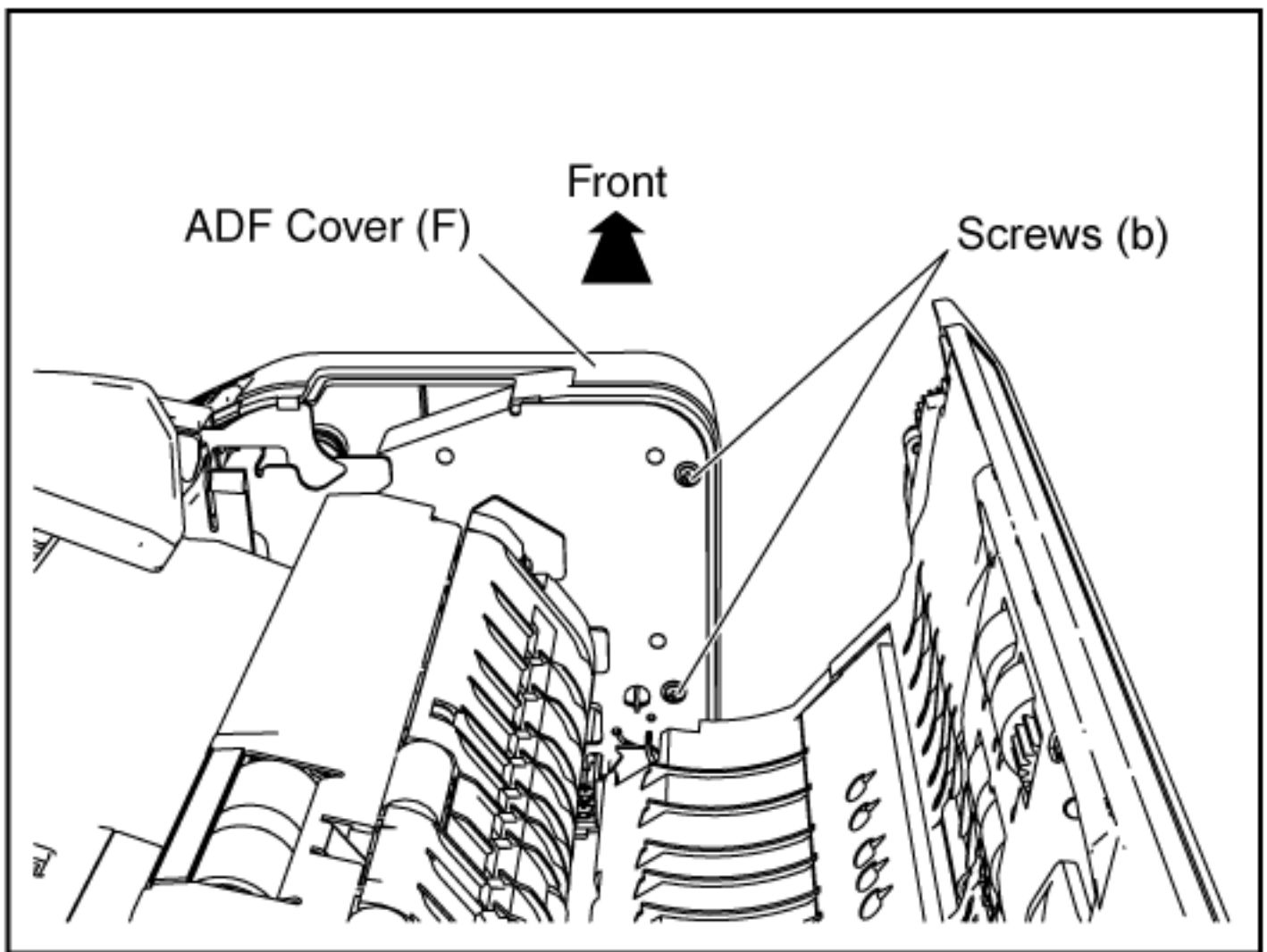
1. Remove the 1 screw (a).



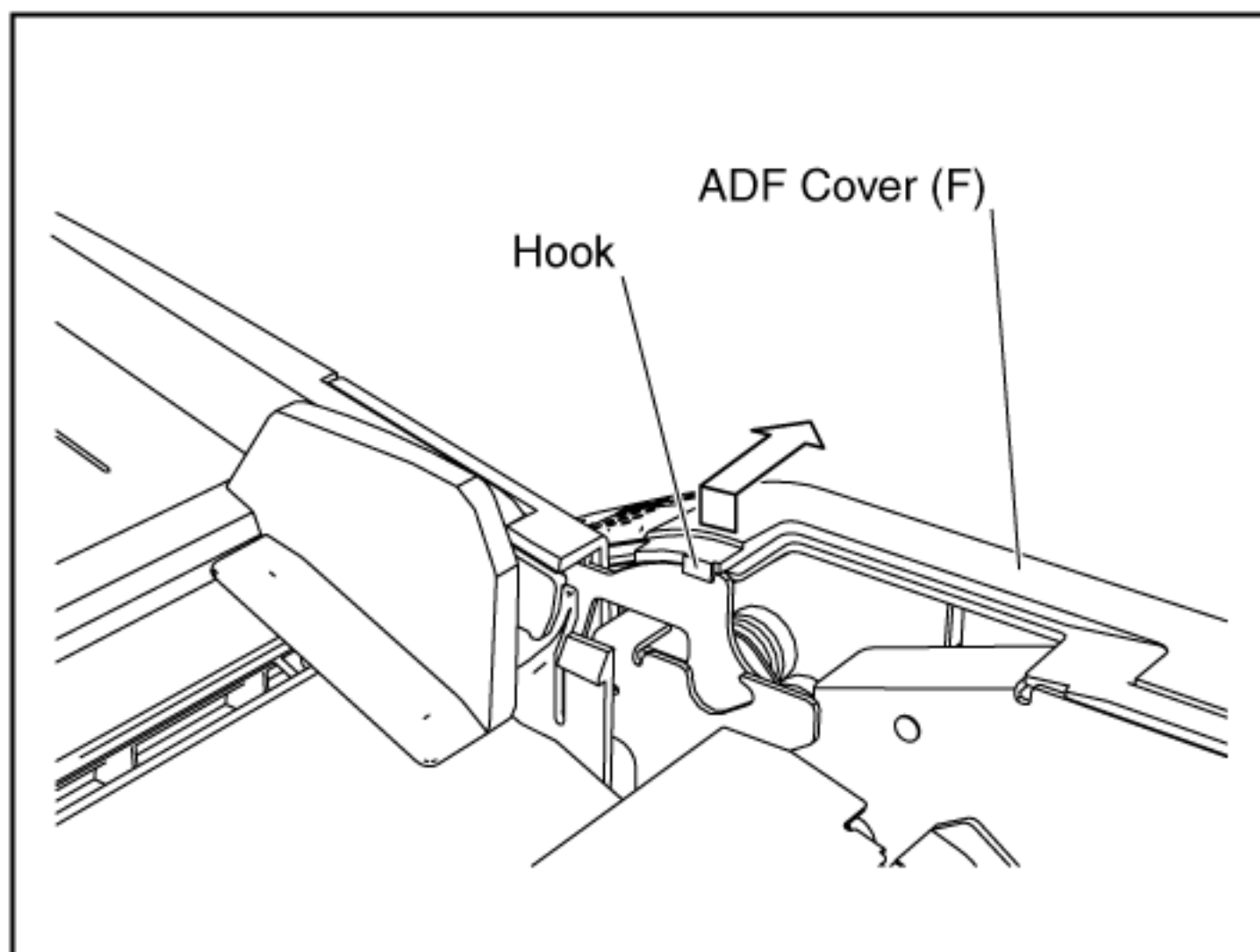
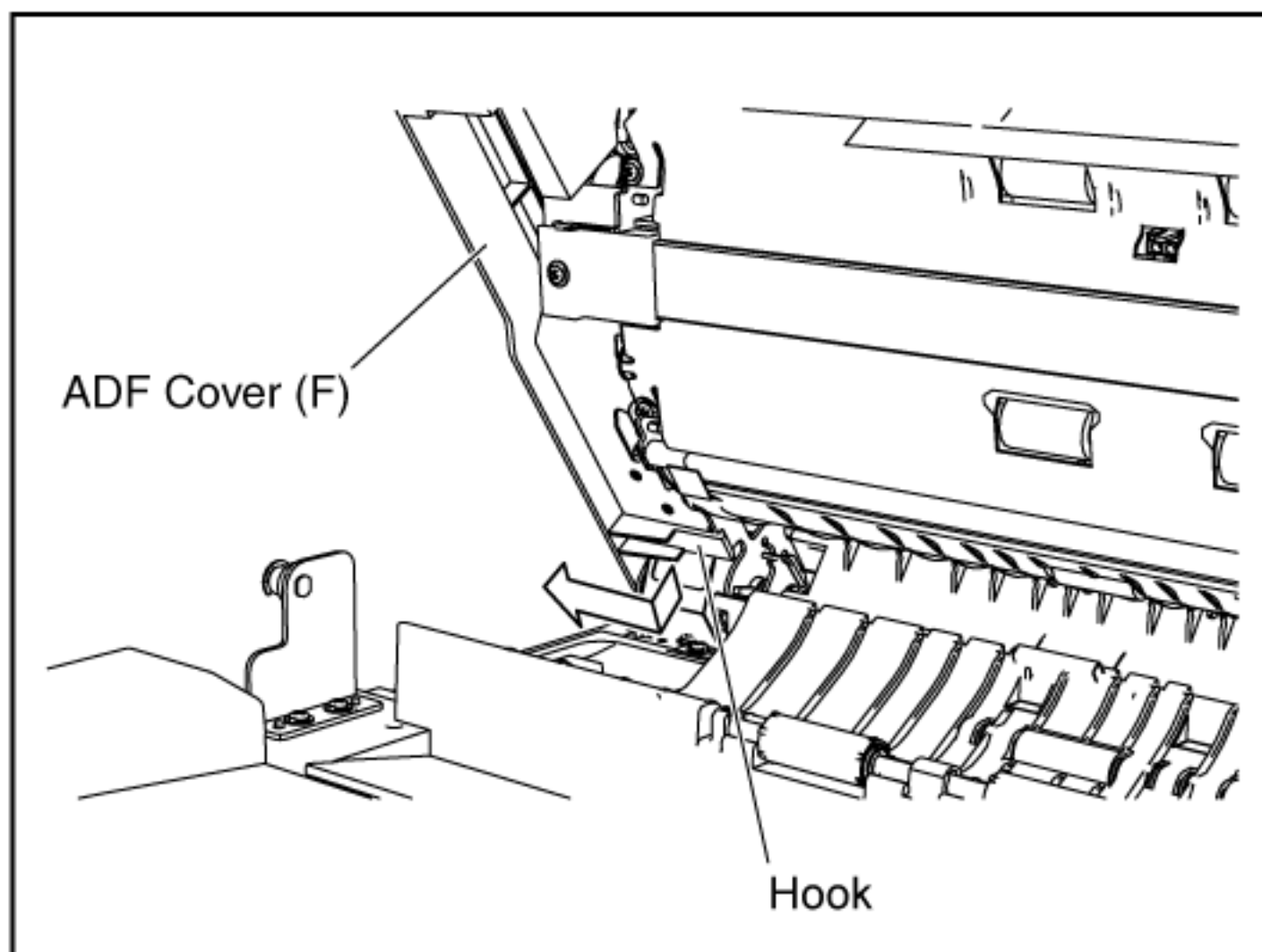
1. Push the ADF Door Release to open the ADF Door.

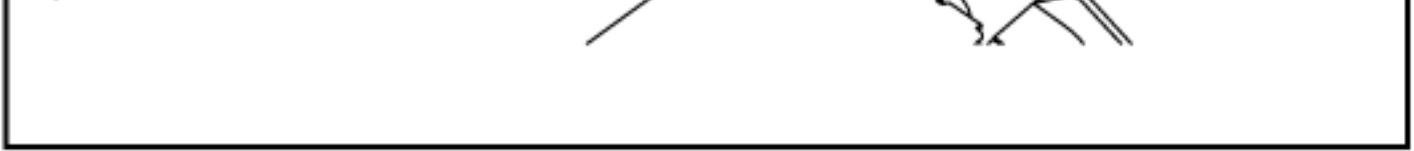


1. Remove the 2 screws (b).



1. Release the hooks in the direction of the arrows to separate the ADF Cover (F) from the scanner.





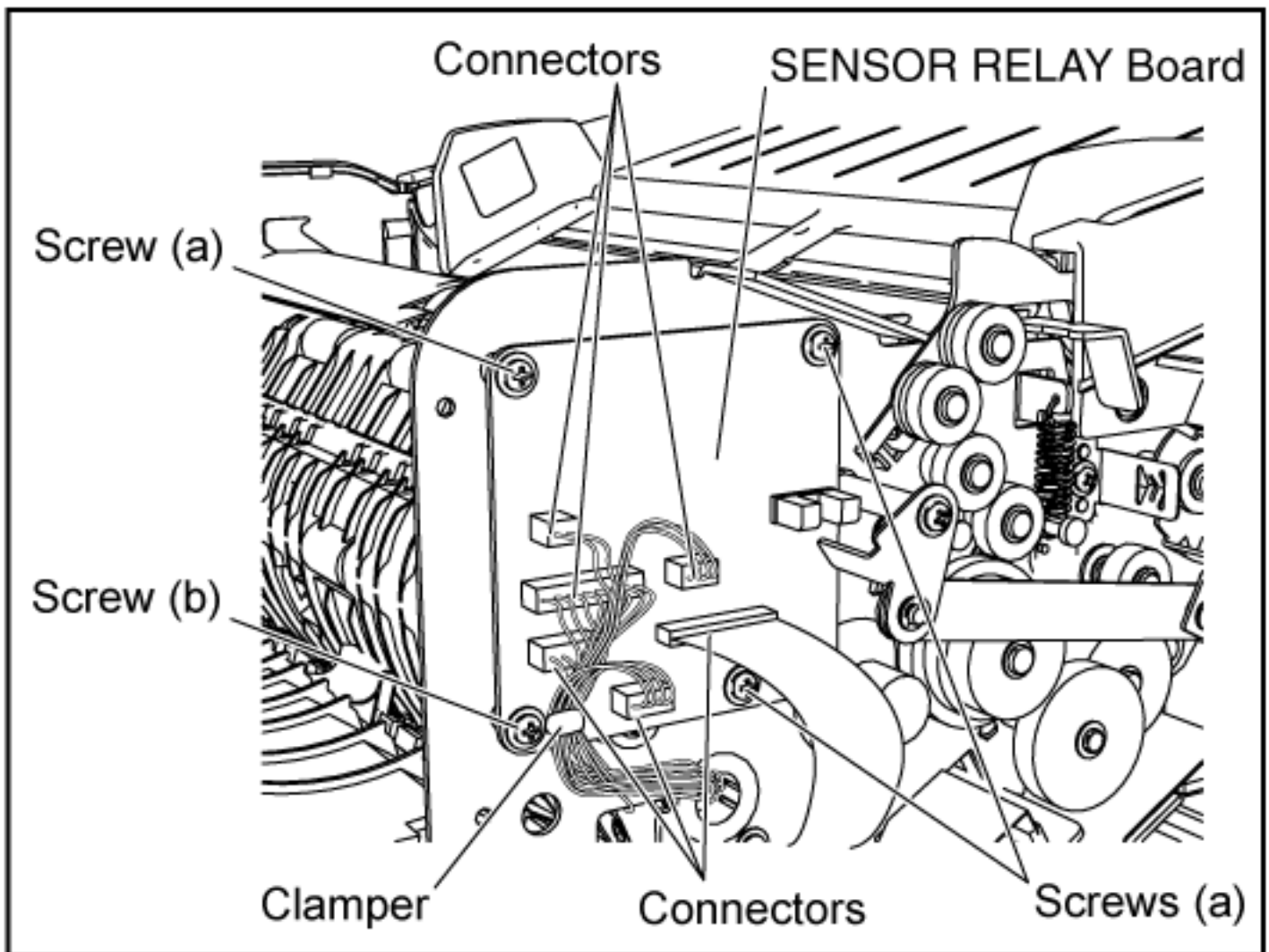
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.13 SENSOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Cover (F). (See 8.3.12.)
2. Remove the 3 screws (a), 1 screw (b) with the clamber, and all connectors on the SENSOR RELAY Board.

(Front View)

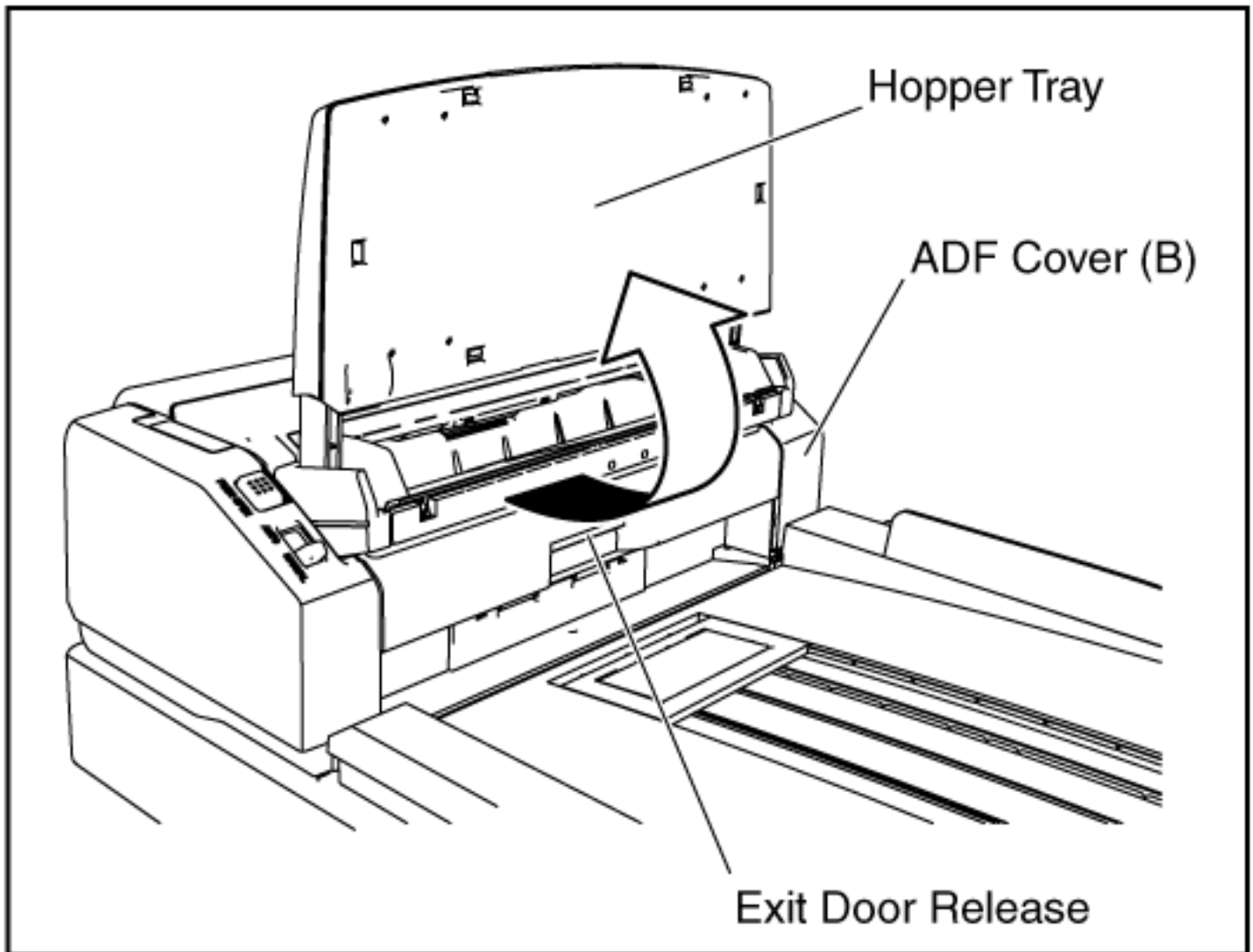


[TOP](#) [PREVIOUS](#) [NEXT](#)

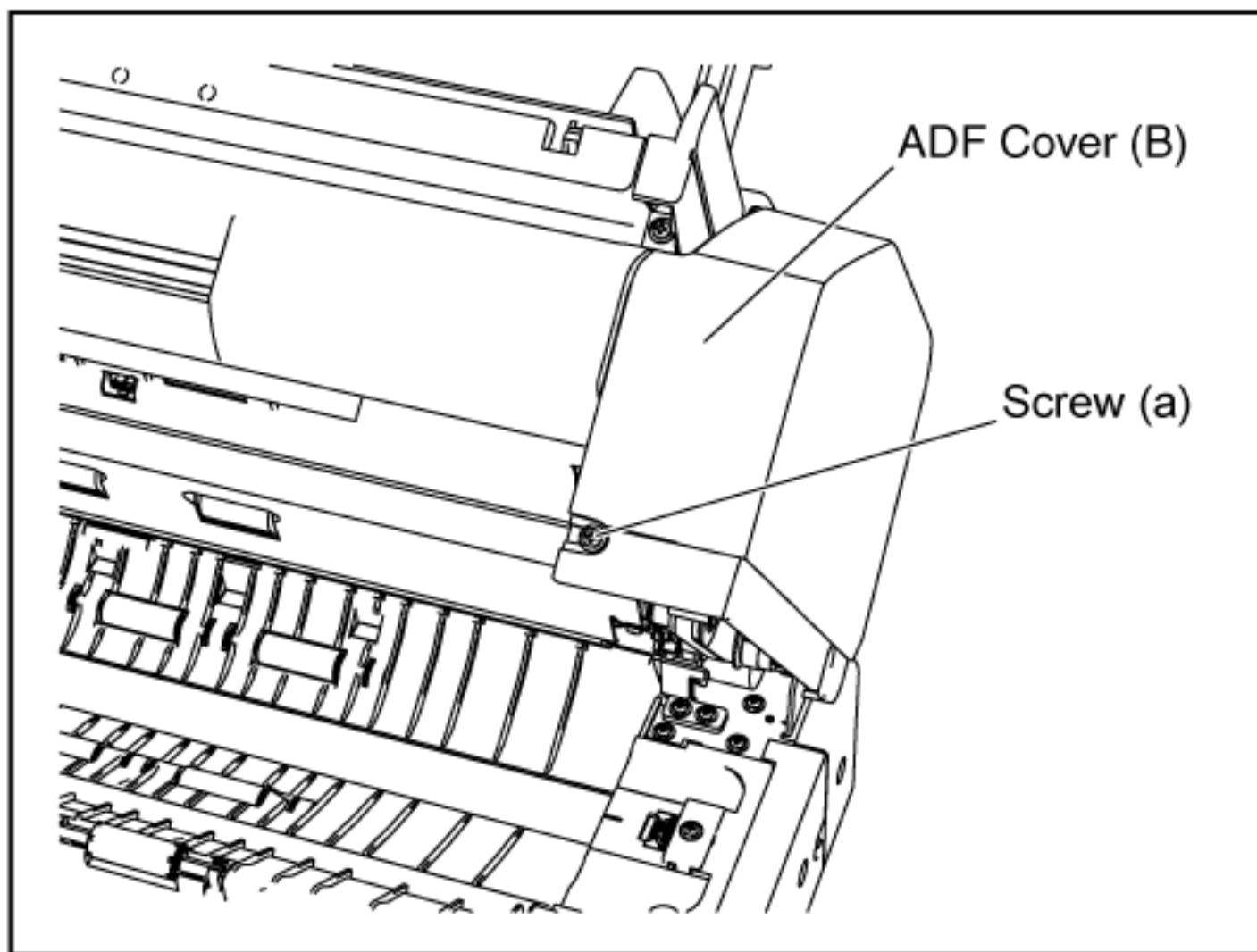
8.3.14 ADF Cover (B)

[TOP](#) [PREVIOUS](#) [NEXT](#)

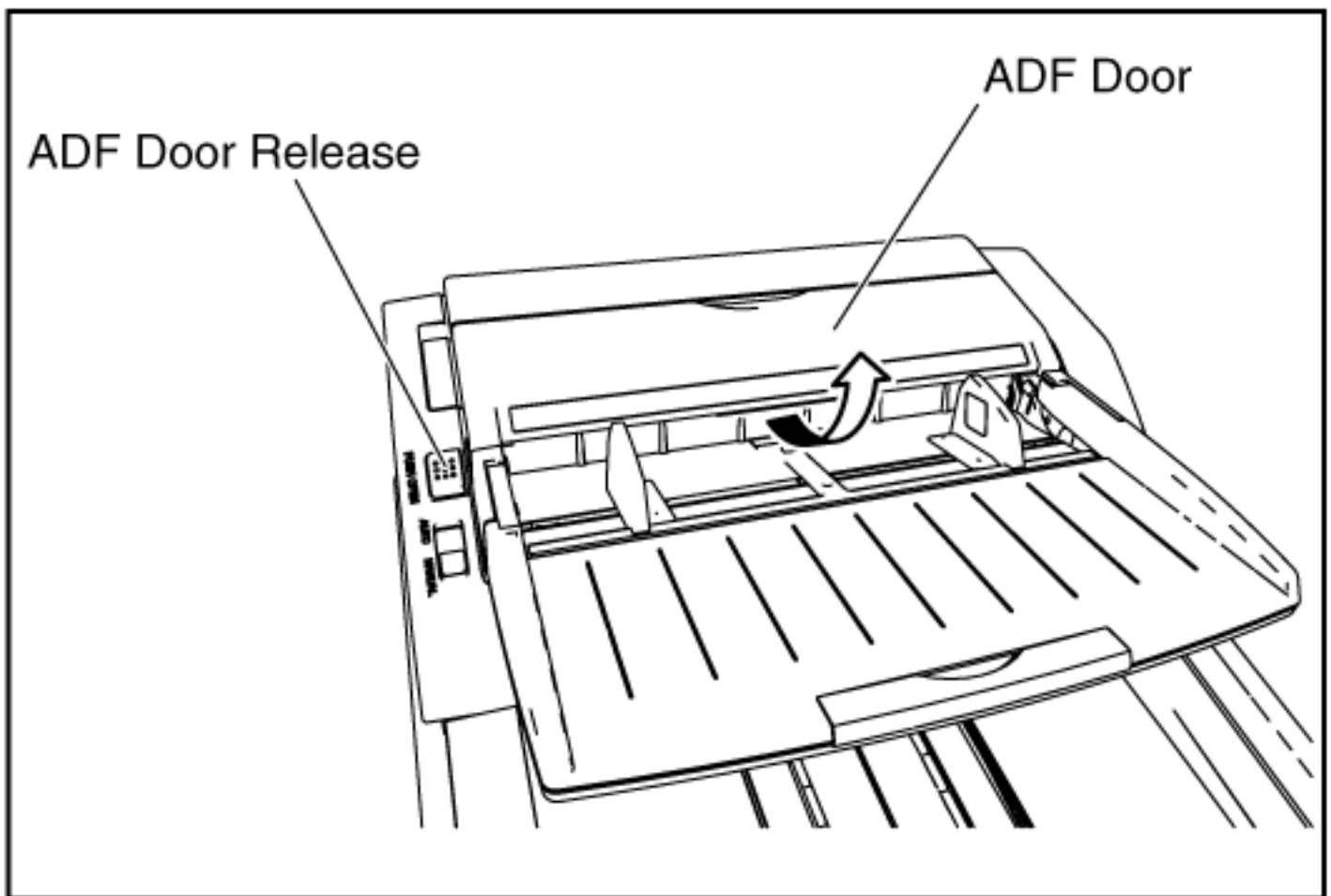
1. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door.



1. Remove the 1 screw (a).

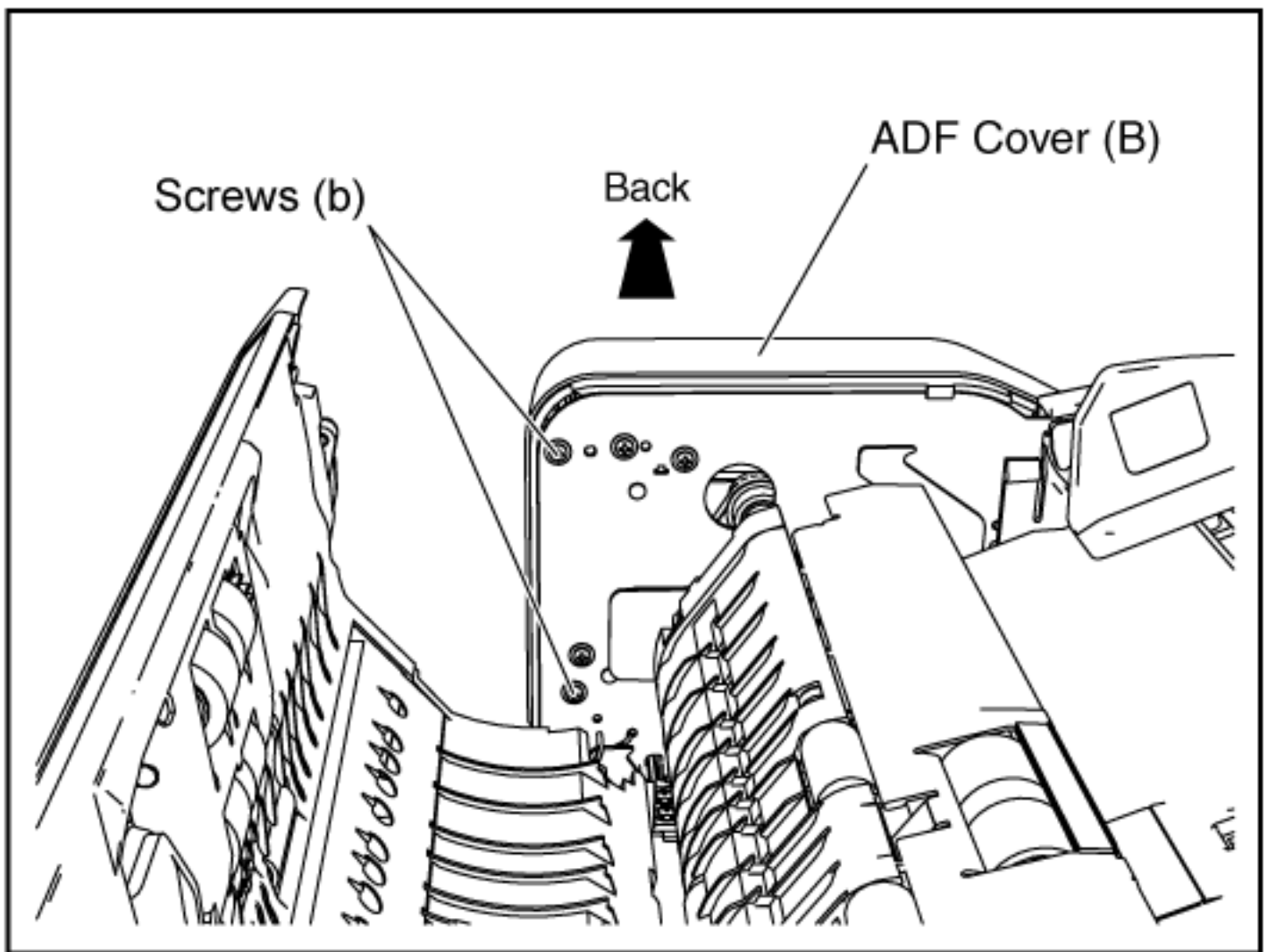


1. Push the ADF Door Release to open the ADF Door.

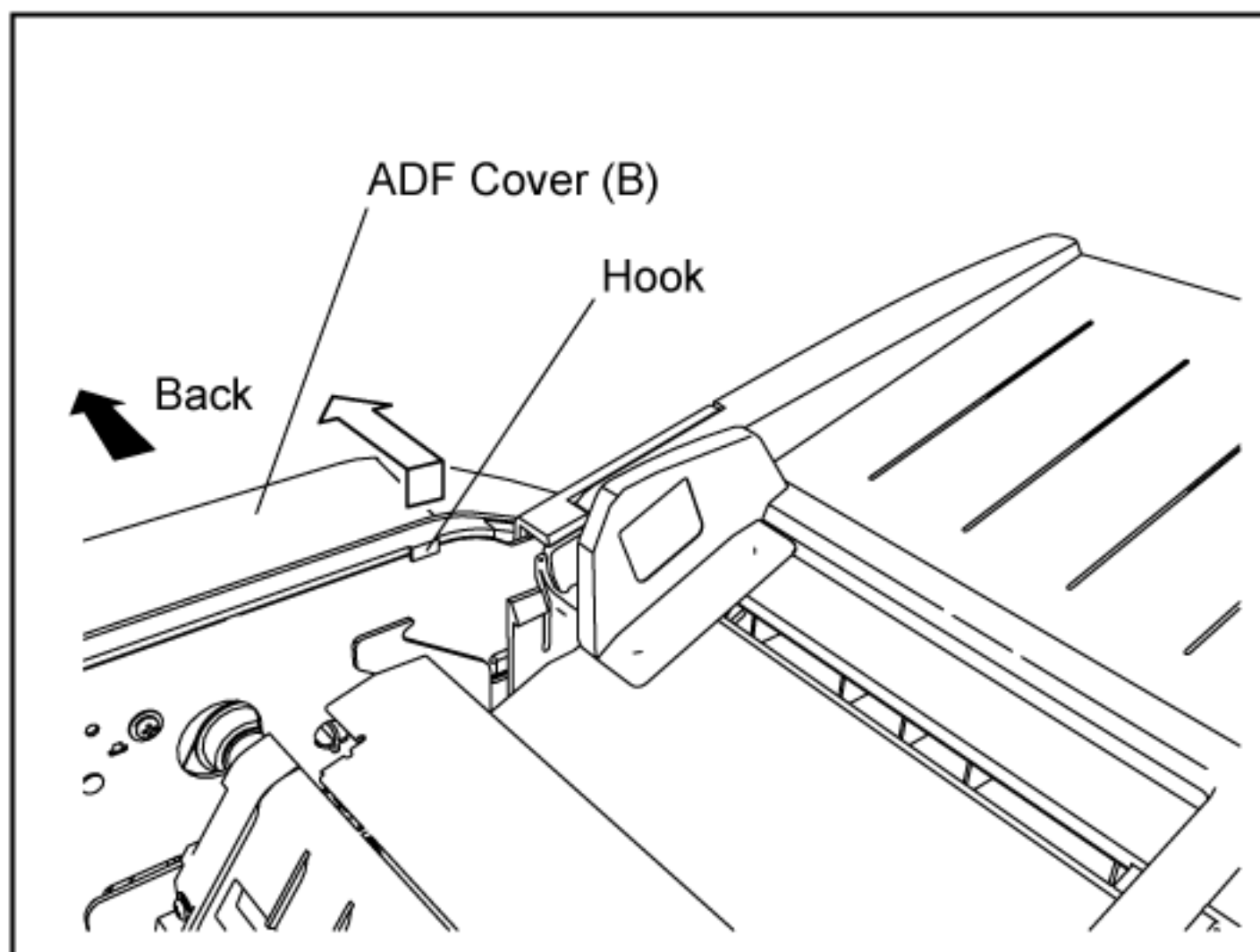
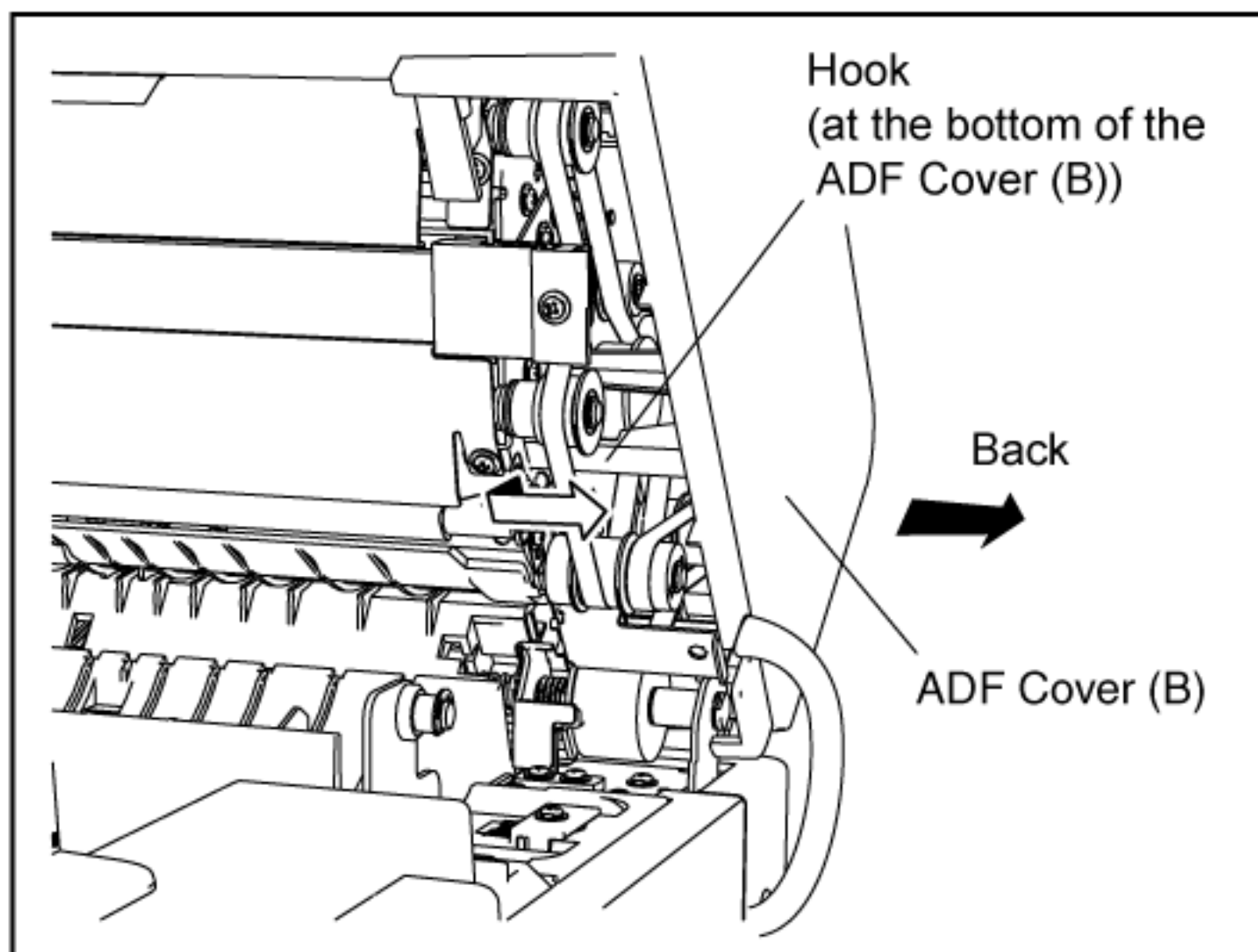


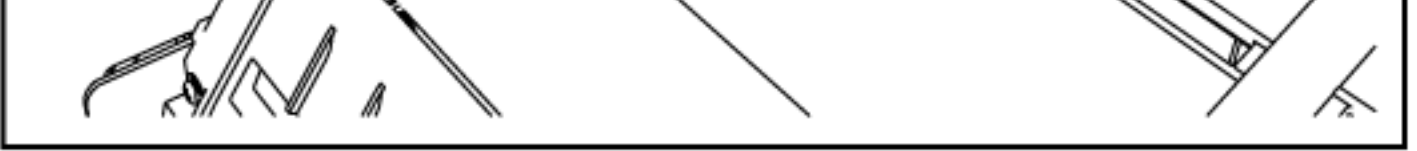
1. Remove the 2 screws (b).

(Top Front View)



1. Release the hooks to separate the ADF Cover (B) from the scanner.



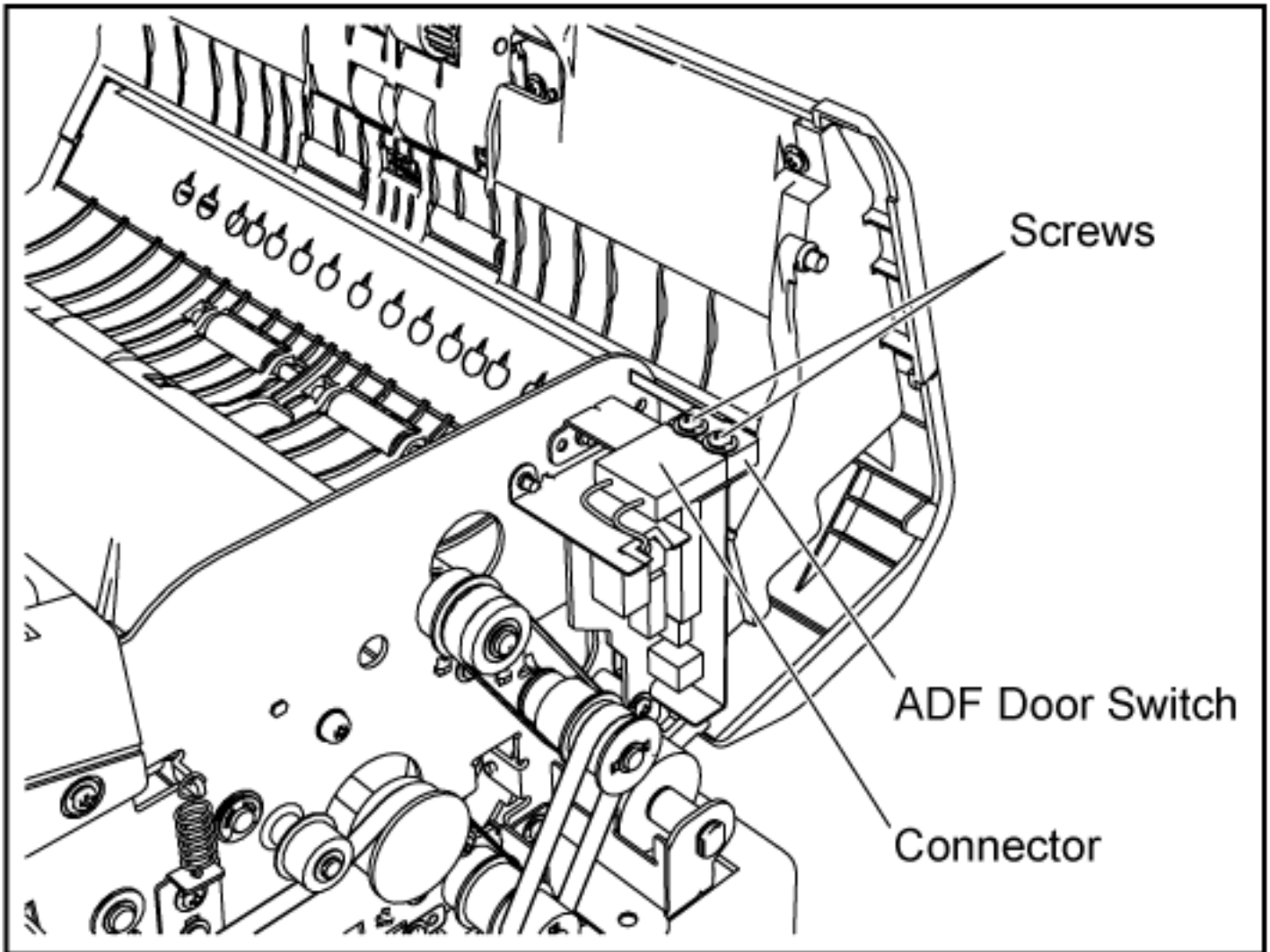


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.15 ADF Door Switch

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Cover (B). (See 8.3.14.)
2. Remove the 1 connector and 2 screws on the ADF Door Switch.



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.16 POWER RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

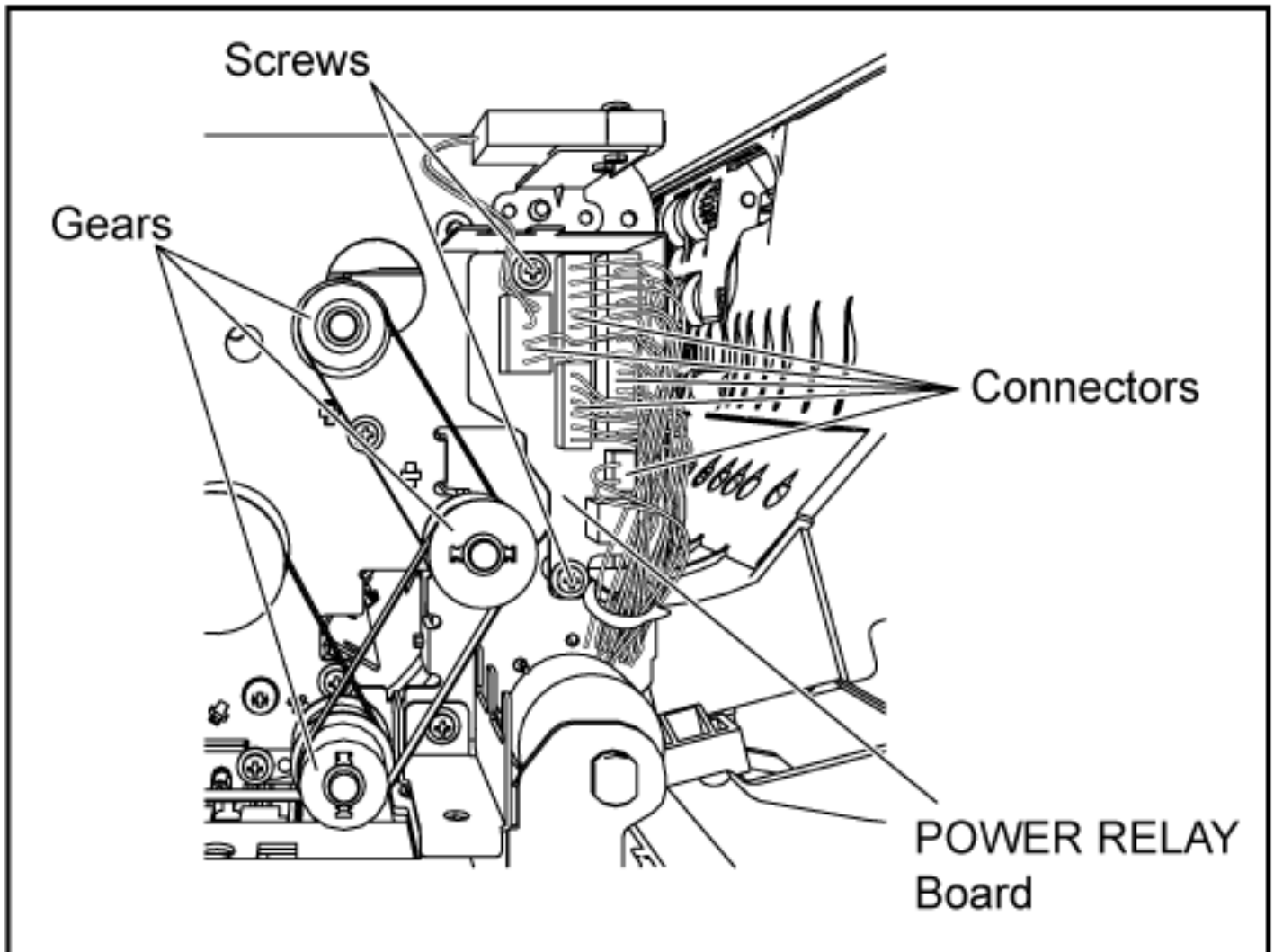
1. Remove the ADF Cover (B). (See 8.3.14.)
2. Remove all connectors and 2 screws on the POWER RELAY Board.

Reassembling Note:

WARNING:

Relocate the wires on the POWER RELAY Board so that they do not touch the gear or belts.

(Back View)

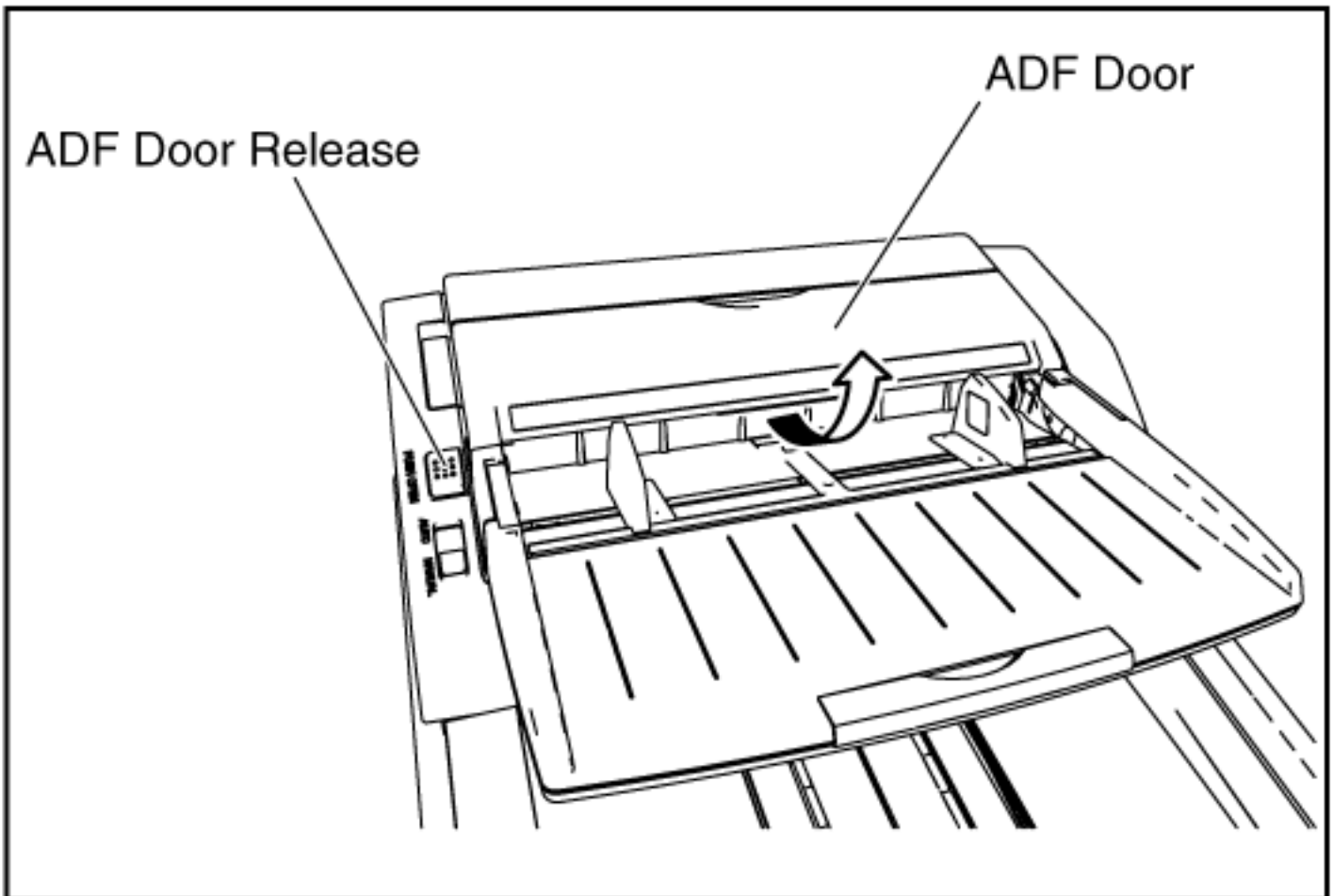


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.17 Conveyor 1

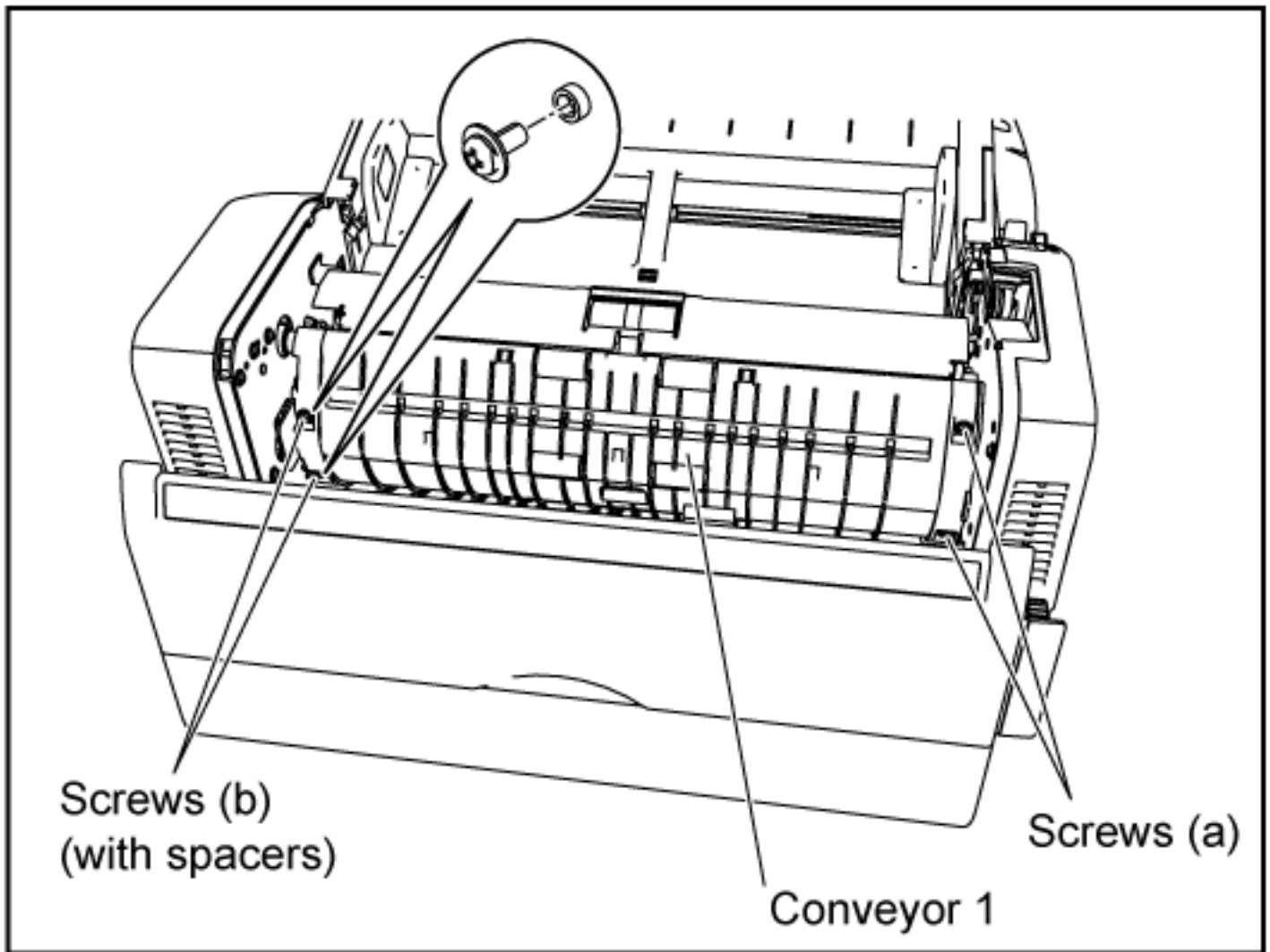
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Push the ADF Door Release to open the ADF Door.



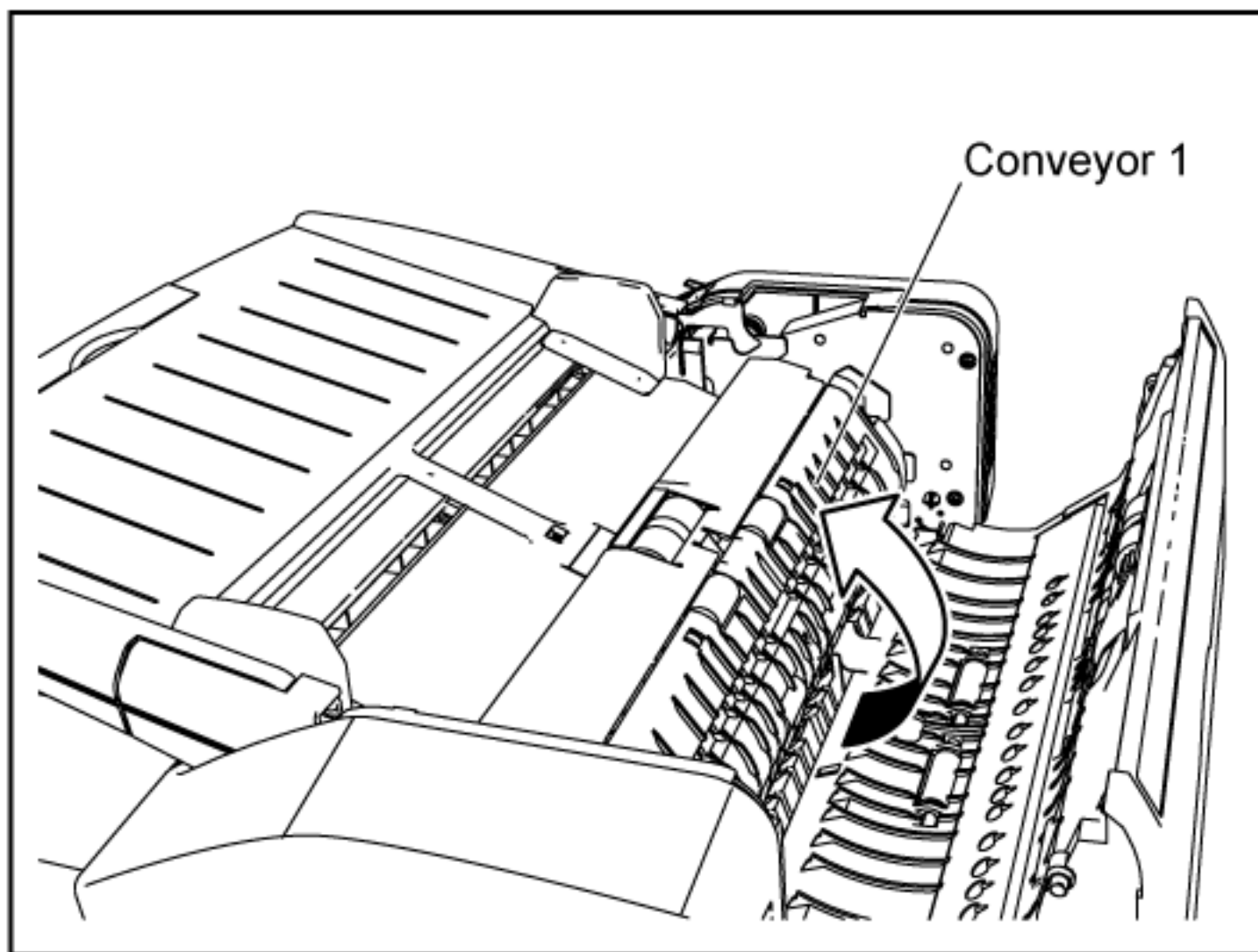
1. Remove the 2 screws (a) and 2 screws (b) with the spacers.

(Left side View)



1. Remove the Conveyor 1 in the direction of the arrow from the scanner.

(Top Back View)



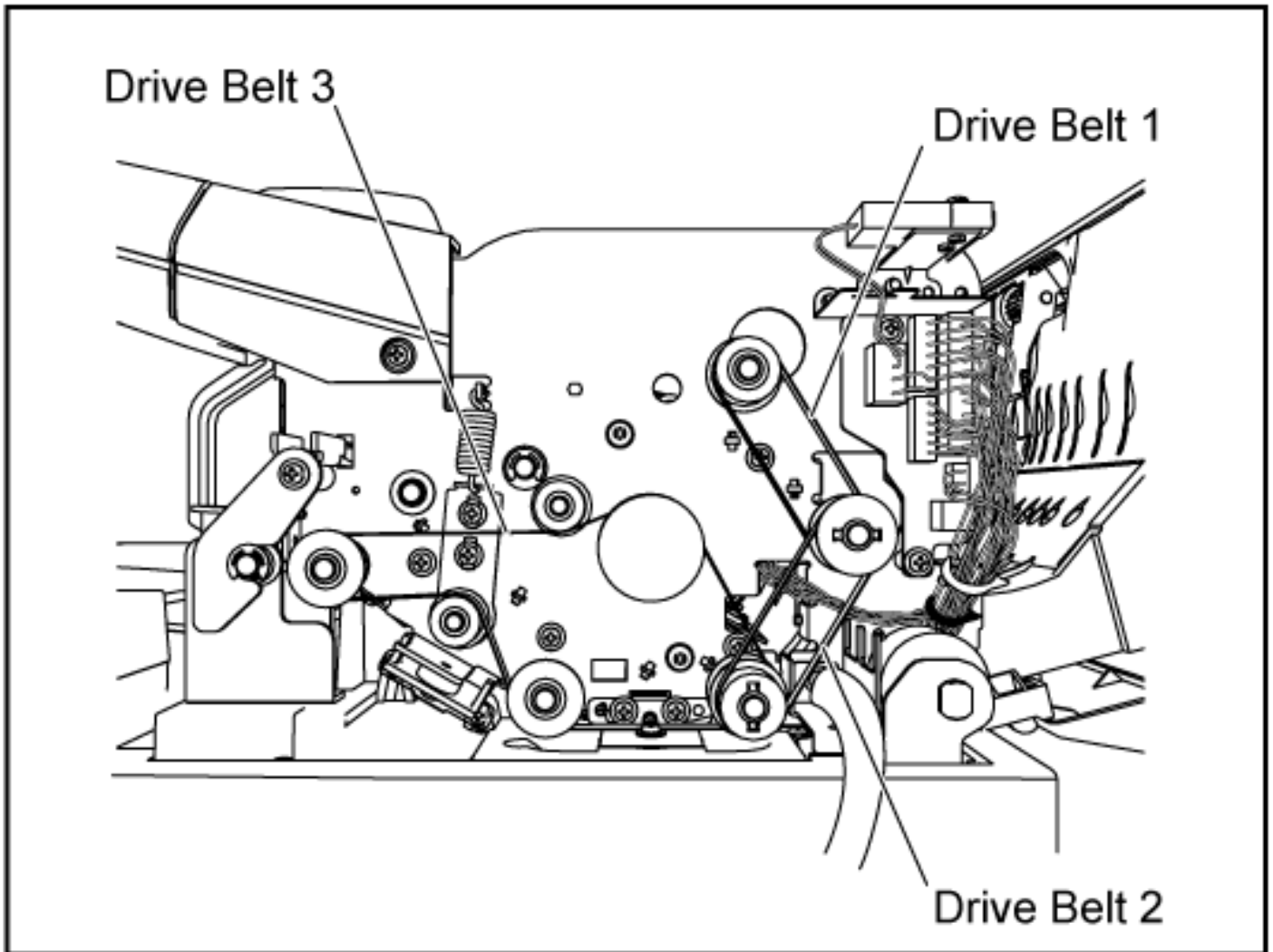
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.18 Drive Belts 1, 2, 3

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Cover (B). (See 8.3.14.)
2. Remove the Drive Belts 1, 2.

(Back View)



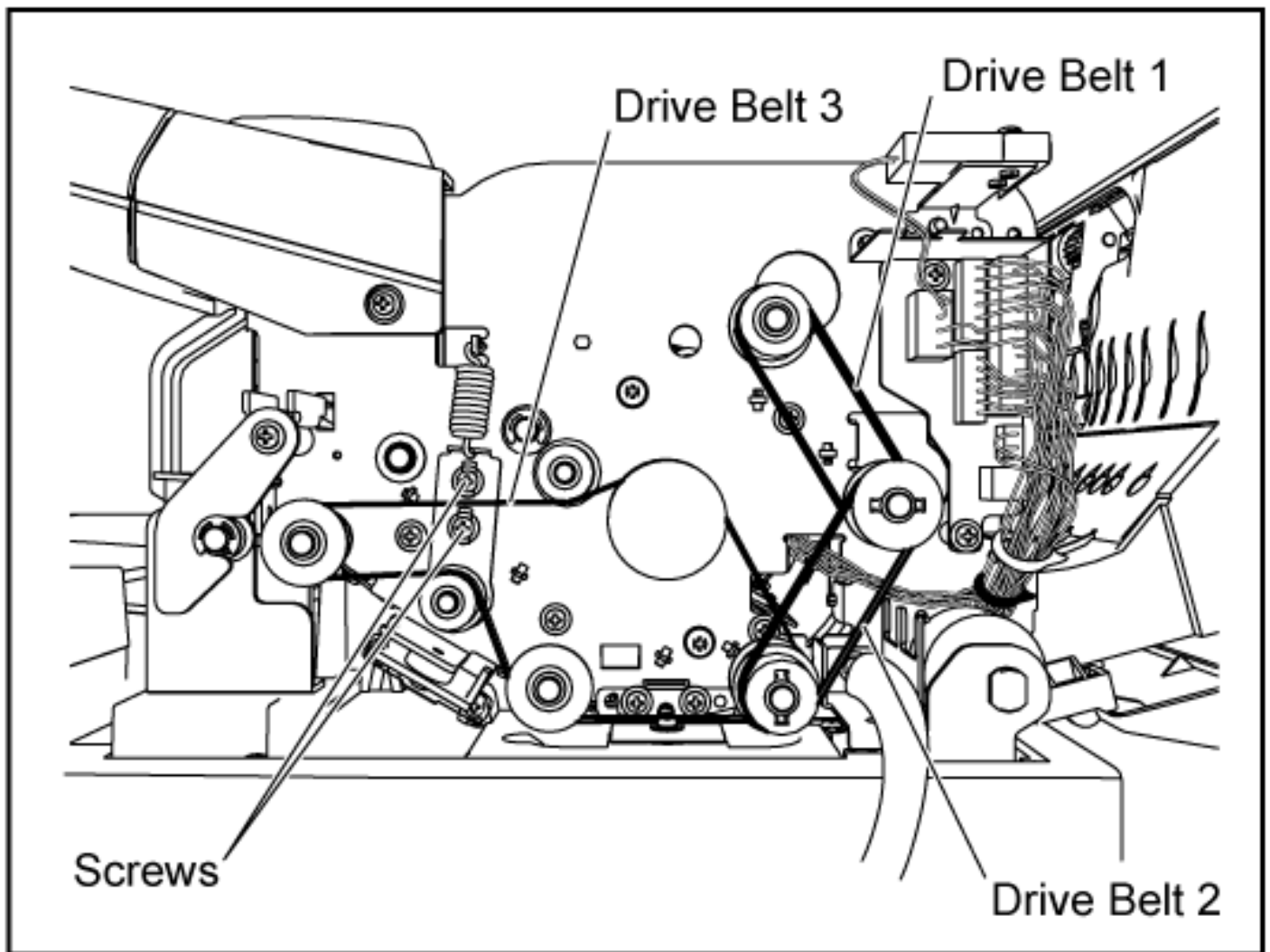
1. Loosen the 2 screws. And push down the lever until it goes, and tighten the screws.
2. Remove the Drive Belt 3.

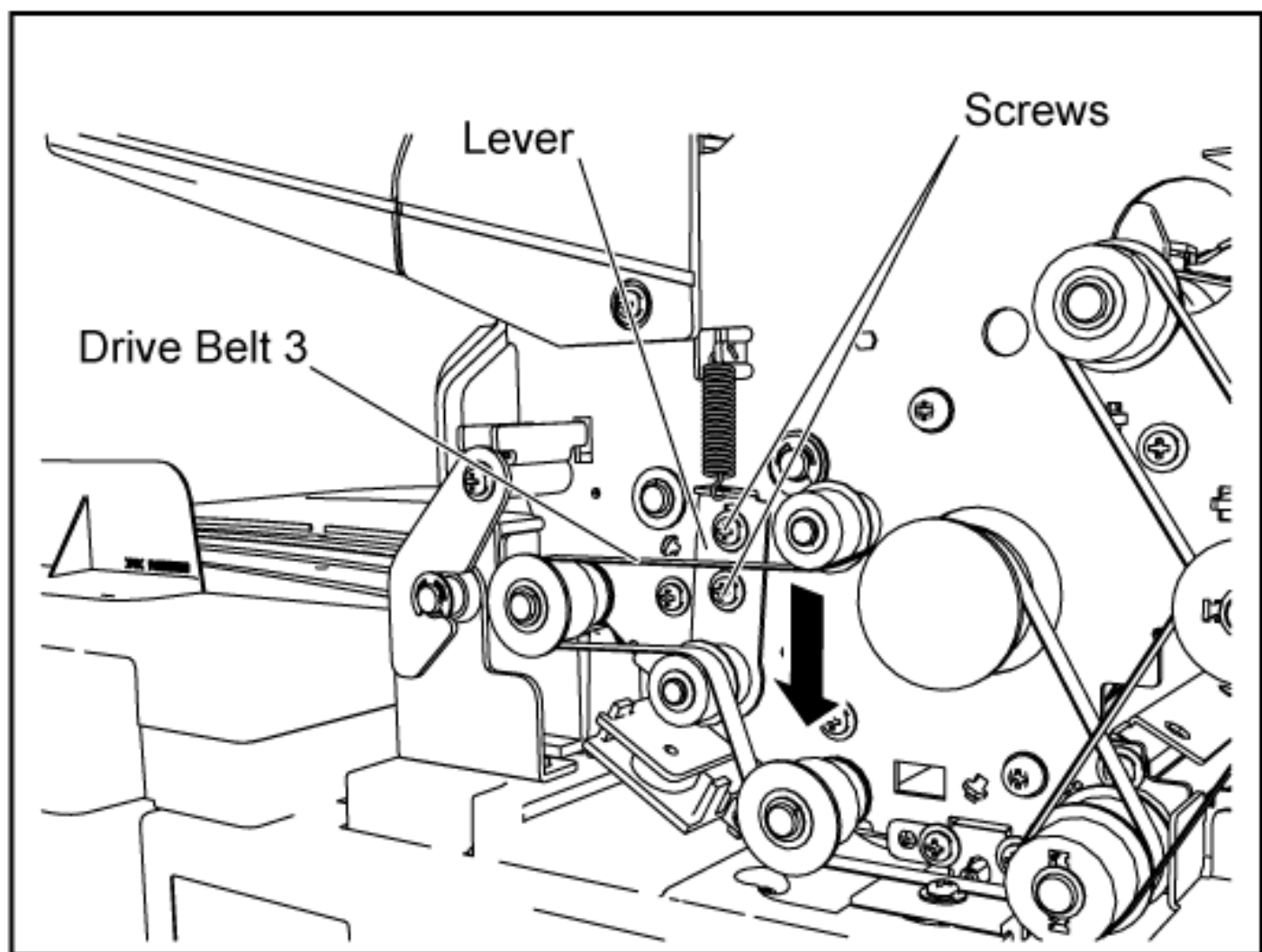
Reassembling Note: BELT LAYOUT

- A. Reattach the Drive Belt 3 as shown on the following figure.
- B. Loosen the 2 screws.

(Loosening the 2 screws will make the belt tension properly.)

C. Tighten the 2 screws.



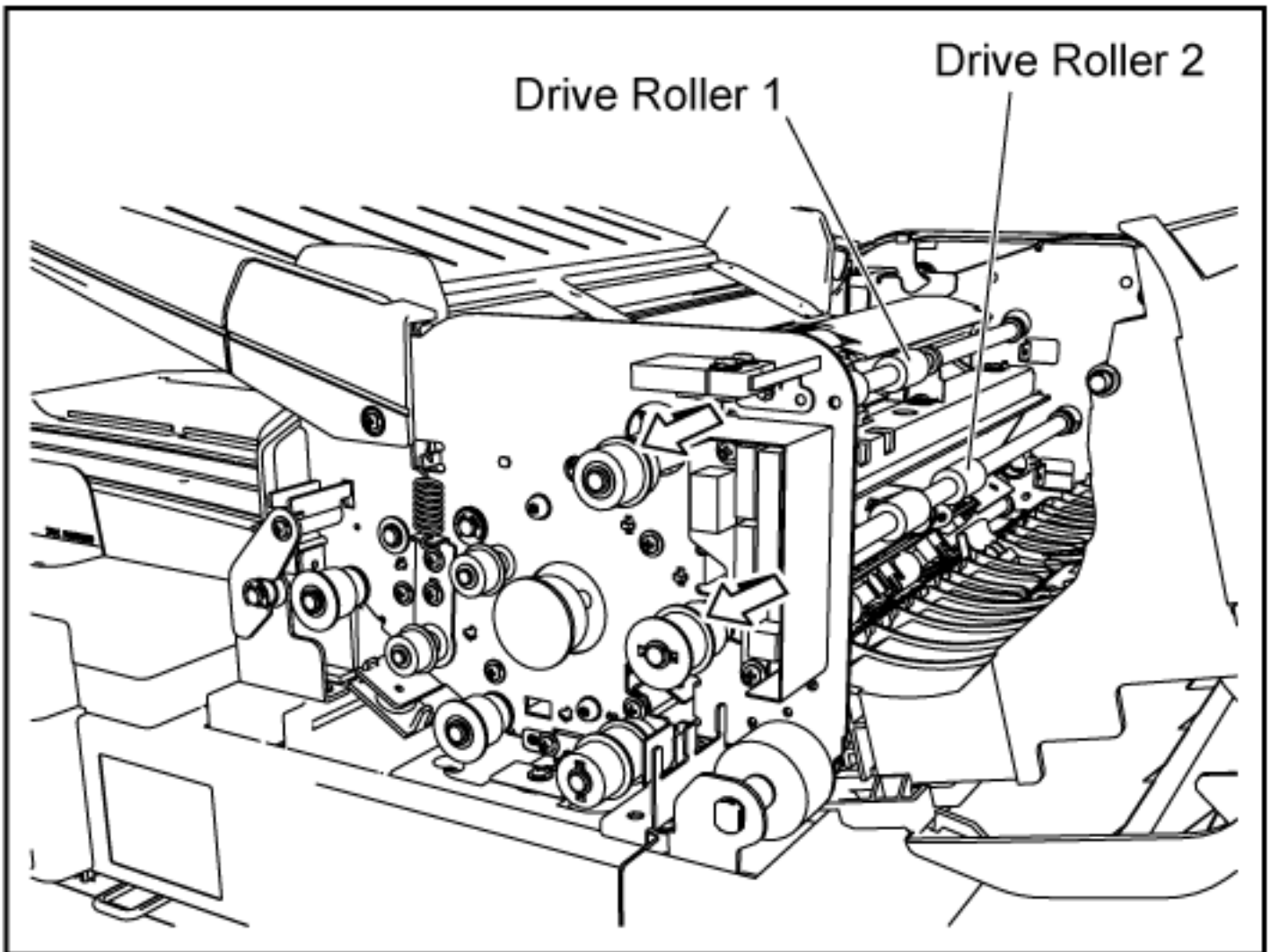


[TOP](#) [PREVIOUS](#) [NEXT](#)

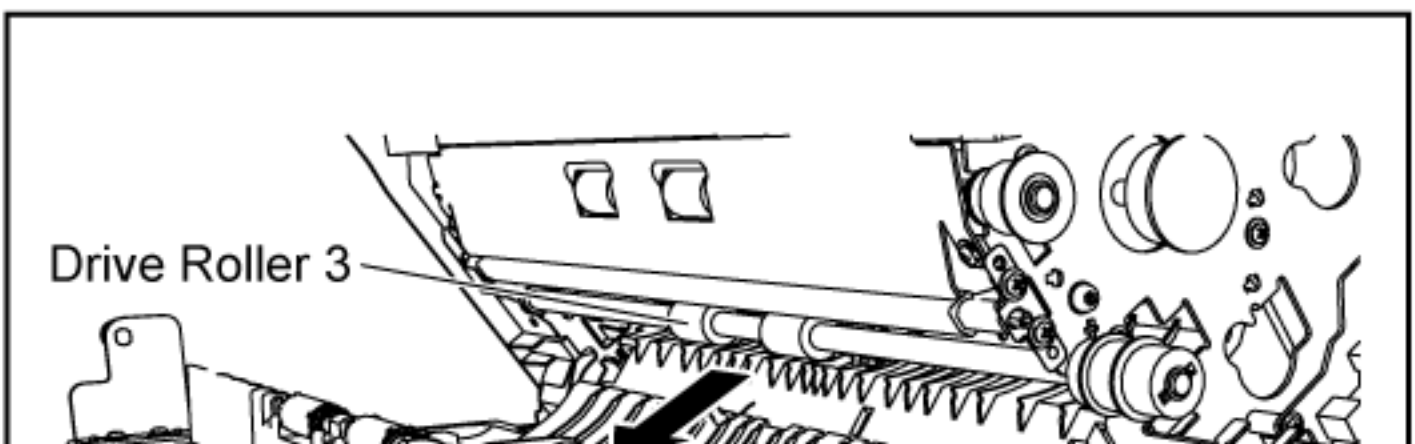
8.3.19 Drive Rollers 1, 2, 3

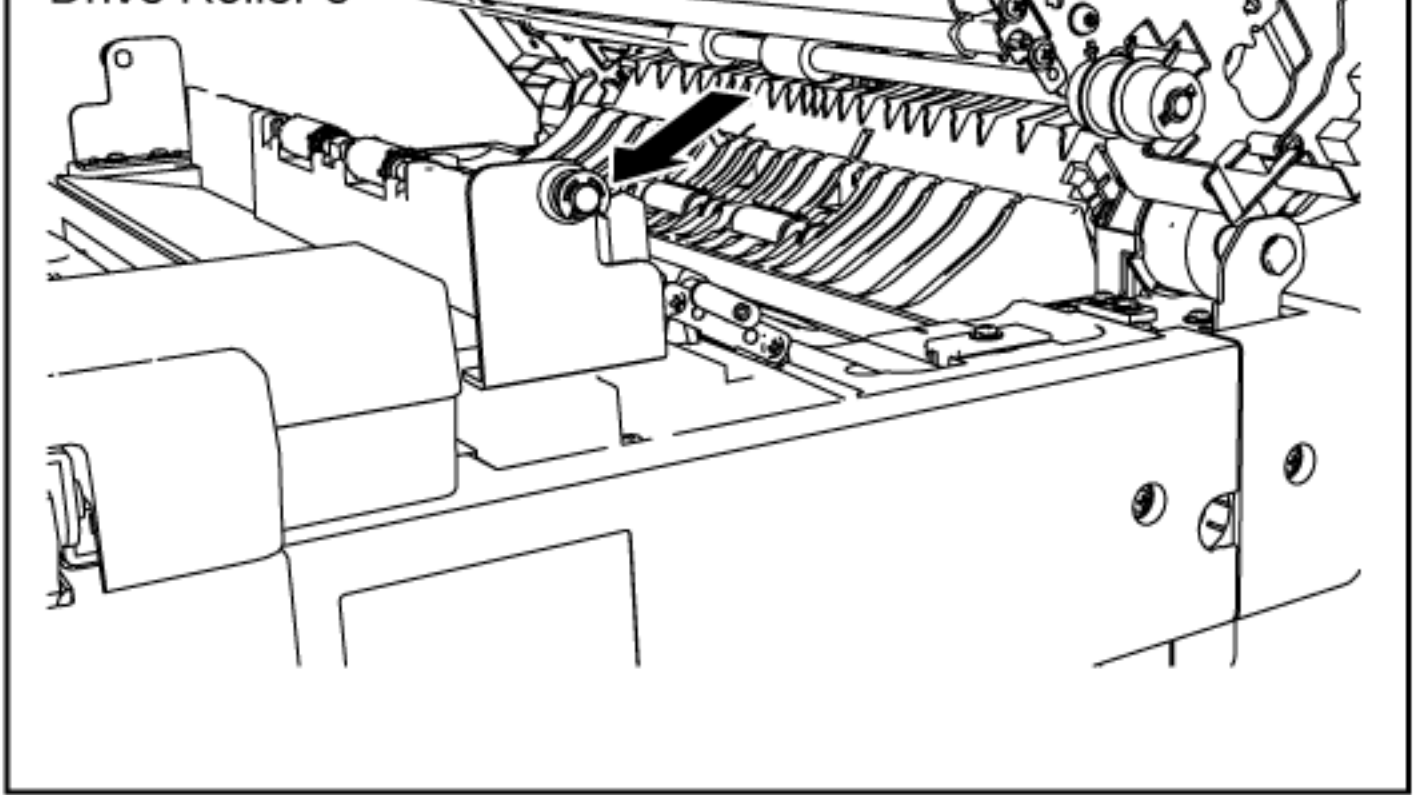
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Drive Belt 1, 2, 3. (See 8.3.18.)
2. Remove the Conveyor 1. (See 8.3.17.)
3. Pull out the Drive Rollers 1, 2, 3 in the direction of the arrows, holding them.



(Left Back View)





(Back View)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.20 Double Feed Detector (G)

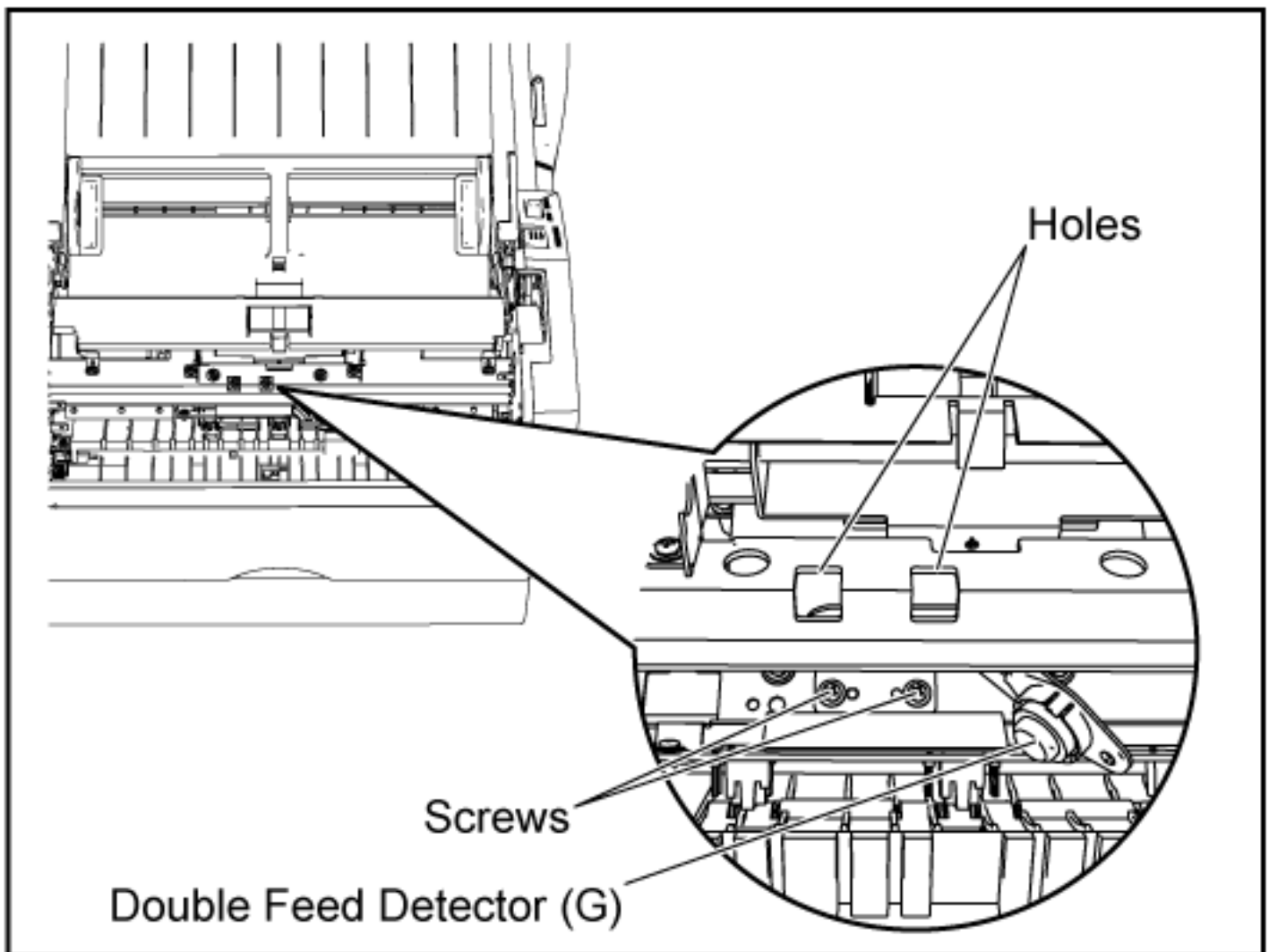
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Drive Rollers 1, 2, 3. (See 8.3.19.)
2. Remove the 2 screws through the holes.

Reassembling Note:

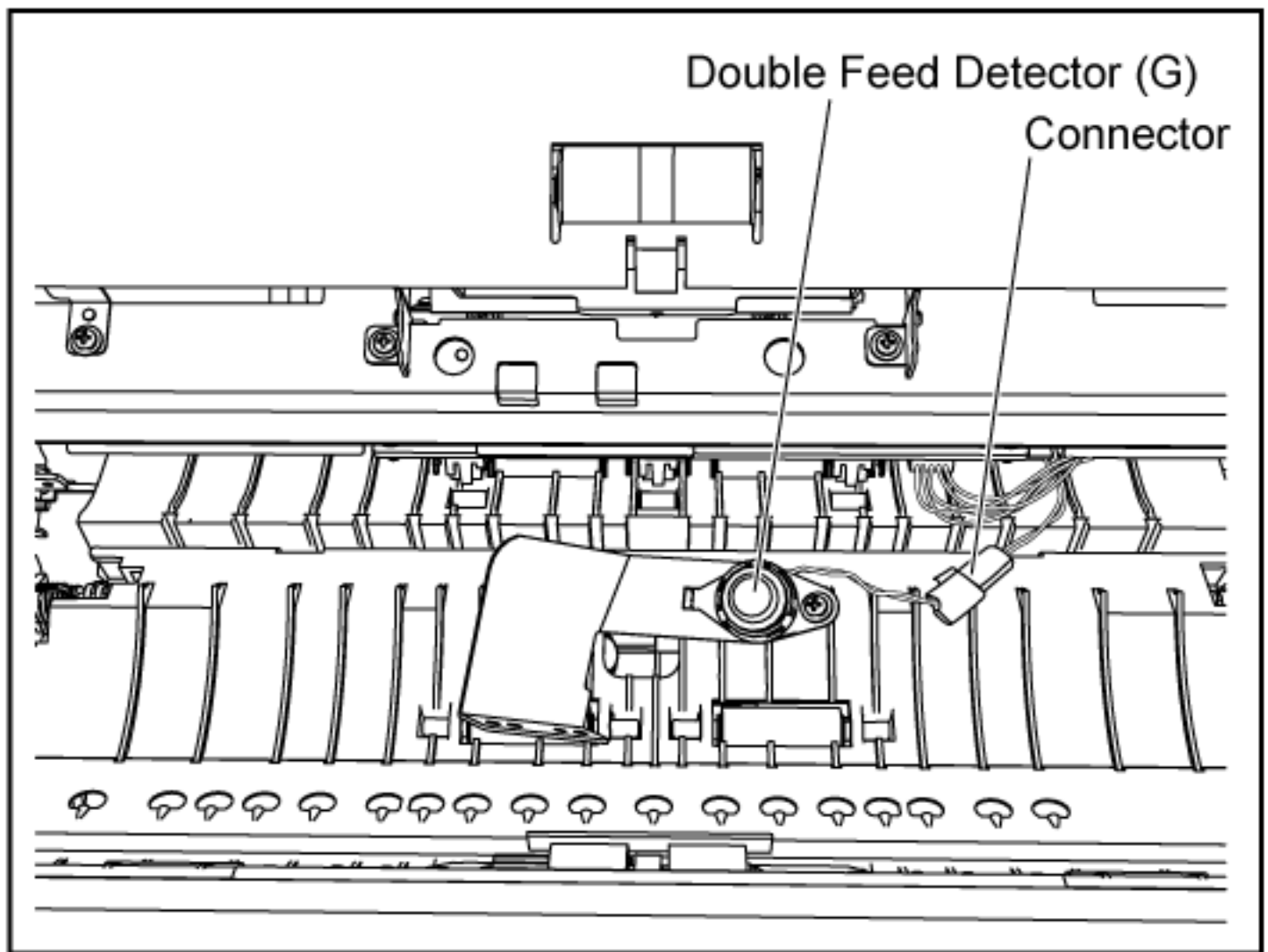
Be careful not to crimp or pinch the wires when tightening the screws.

(Left side View)

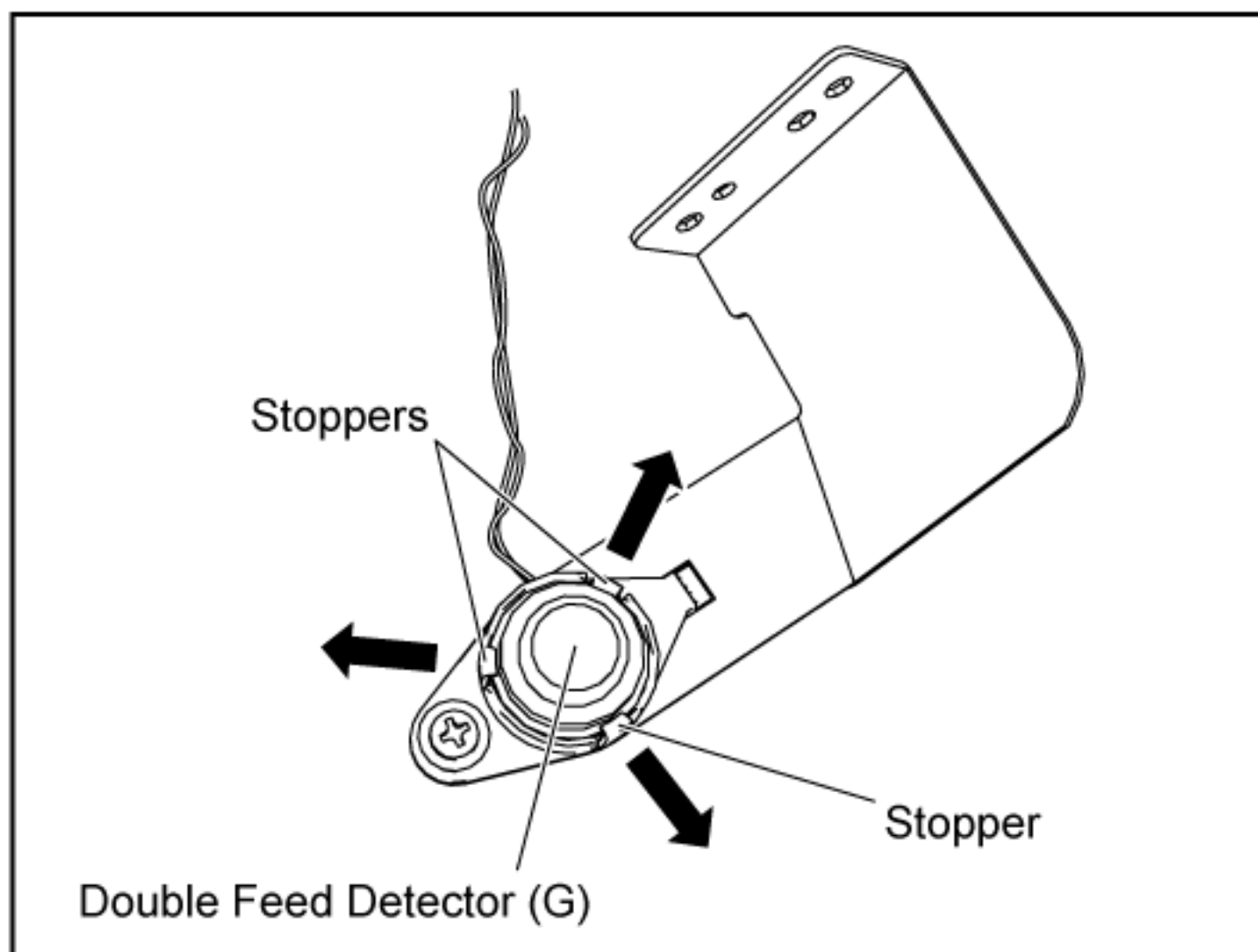


1. Disconnect the 1 connector (CN5021).

(Left Side View)



1. Release the stoppers of detector base to remove the Double Feed Detector (G).



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.21 STARTING SENSOR Board

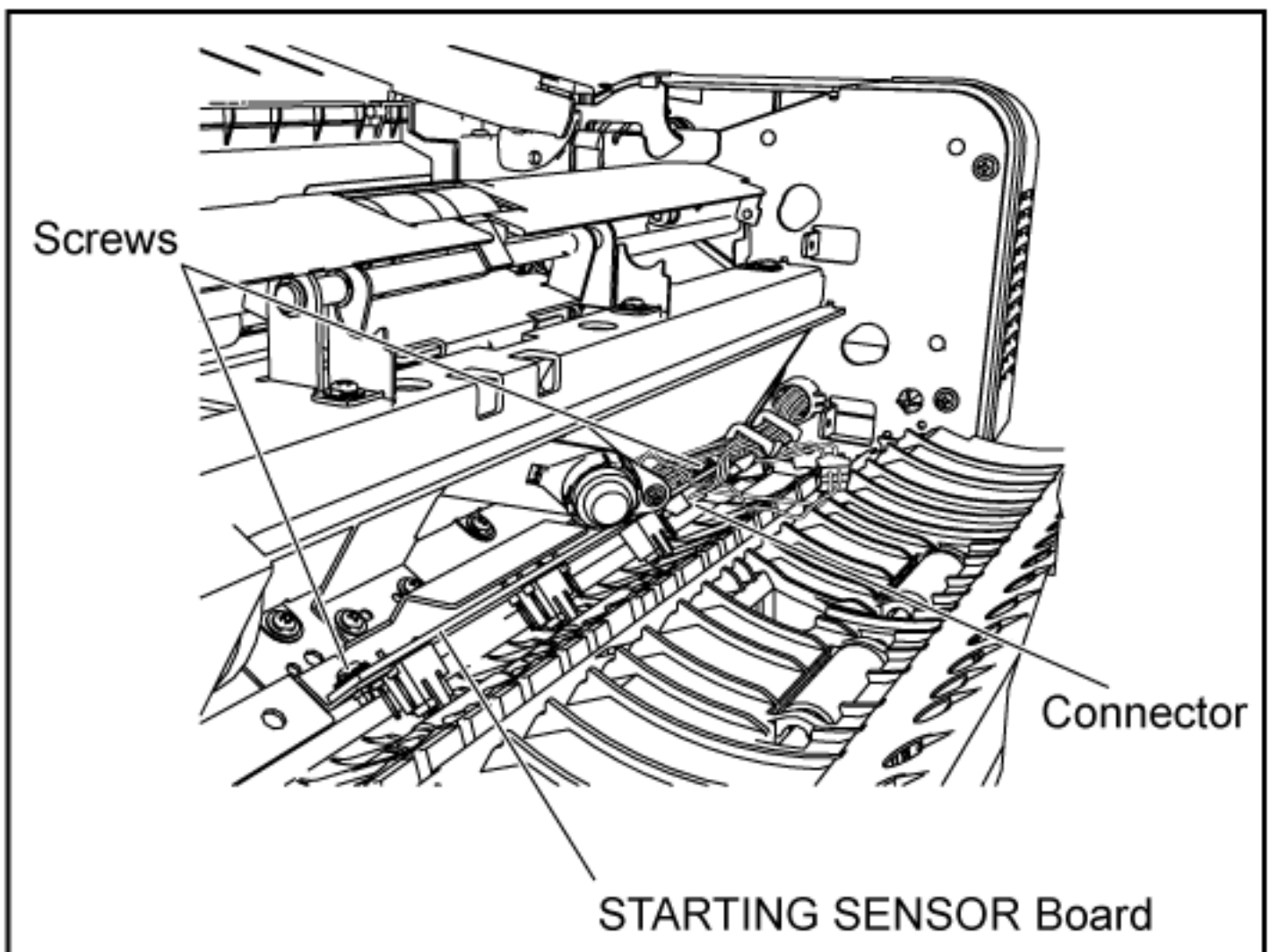
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Drive Rollers 1, 2, 3. (See 8.3.19.)
2. Remove the Hopper. (See 8.3.9.)
3. Remove the 2 screws and 1 connector (CN5012) on the STARTING SENSOR Board.

Reassembling Note:

Be careful not to crimp or pinch the wires when tightening the screws.

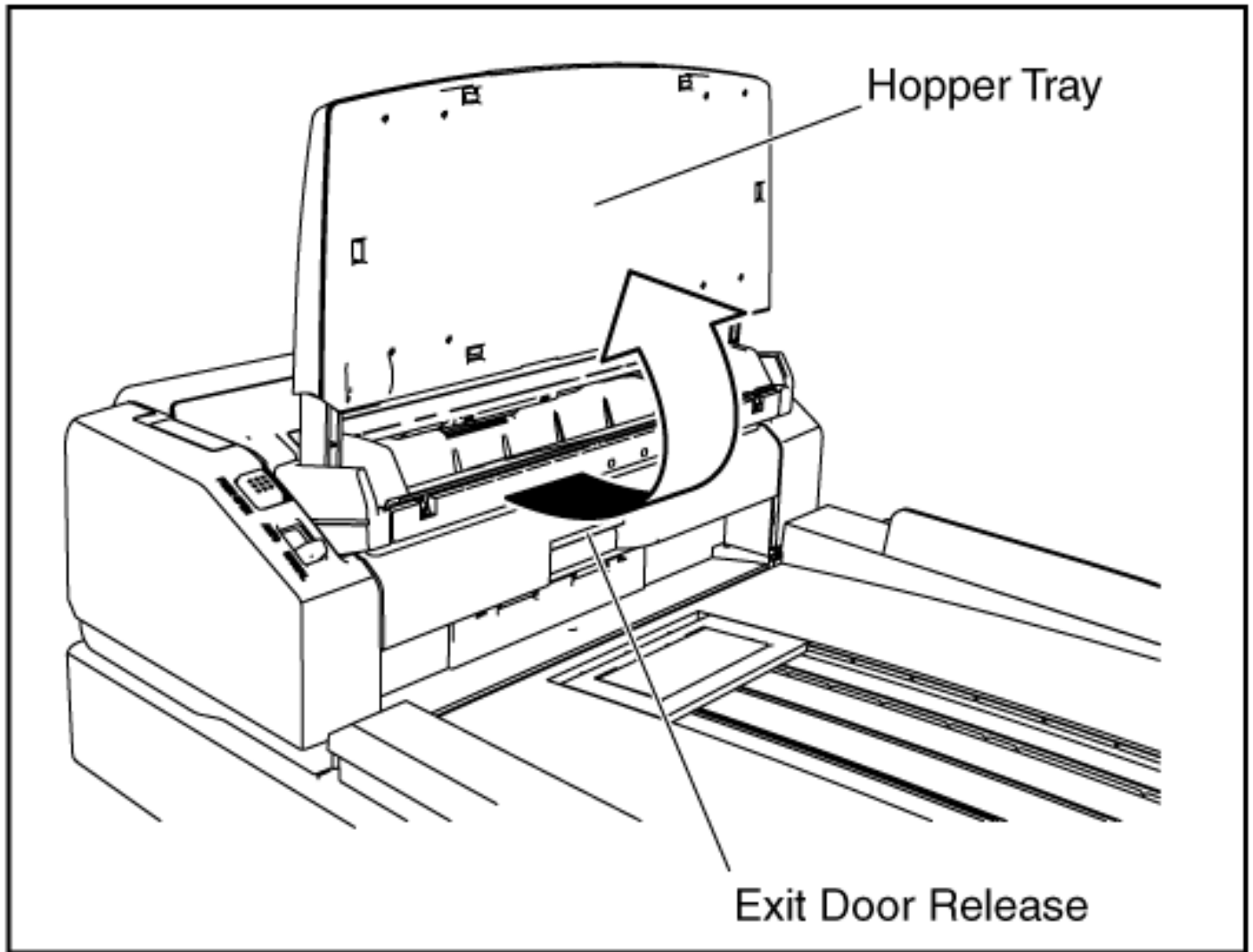
(Left Back View)



8.3.22 ADF Glass (B)

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Fold the Hopper Tray in the direction of the arrow, and pull the Exit Door Release to open the Exit Door.

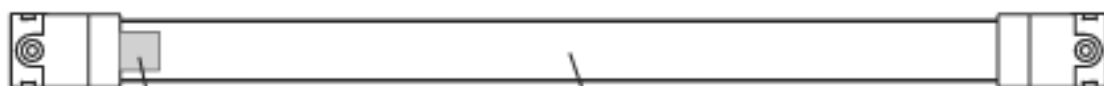


1. Remove the 2 screws, holding the glass surface.

Reassembling Note:

- A. With the accessory Roller Cleaning Paper or Model KV-SS03 (Option: Roller Cleaning Paper), be sure to clean up fingerprint and dirt from the glass attached on the glass surface.
Otherwise, that may affect scanning image.
- B. Be sure to attach the ADF Glass (B), so that the white sheet position is nearby the front.

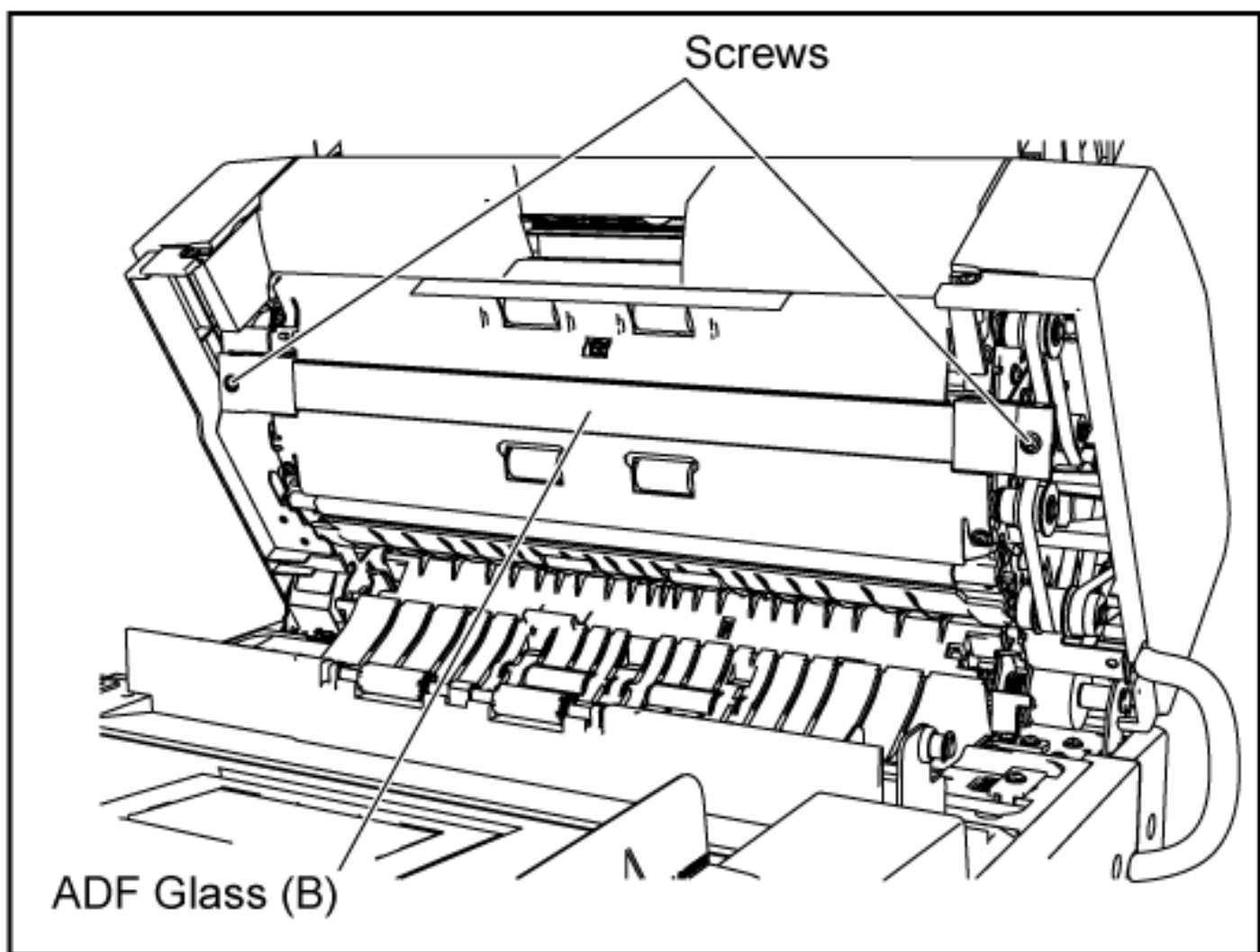
Front



White Sheet

ADF Glass (B)

(Right Back View)



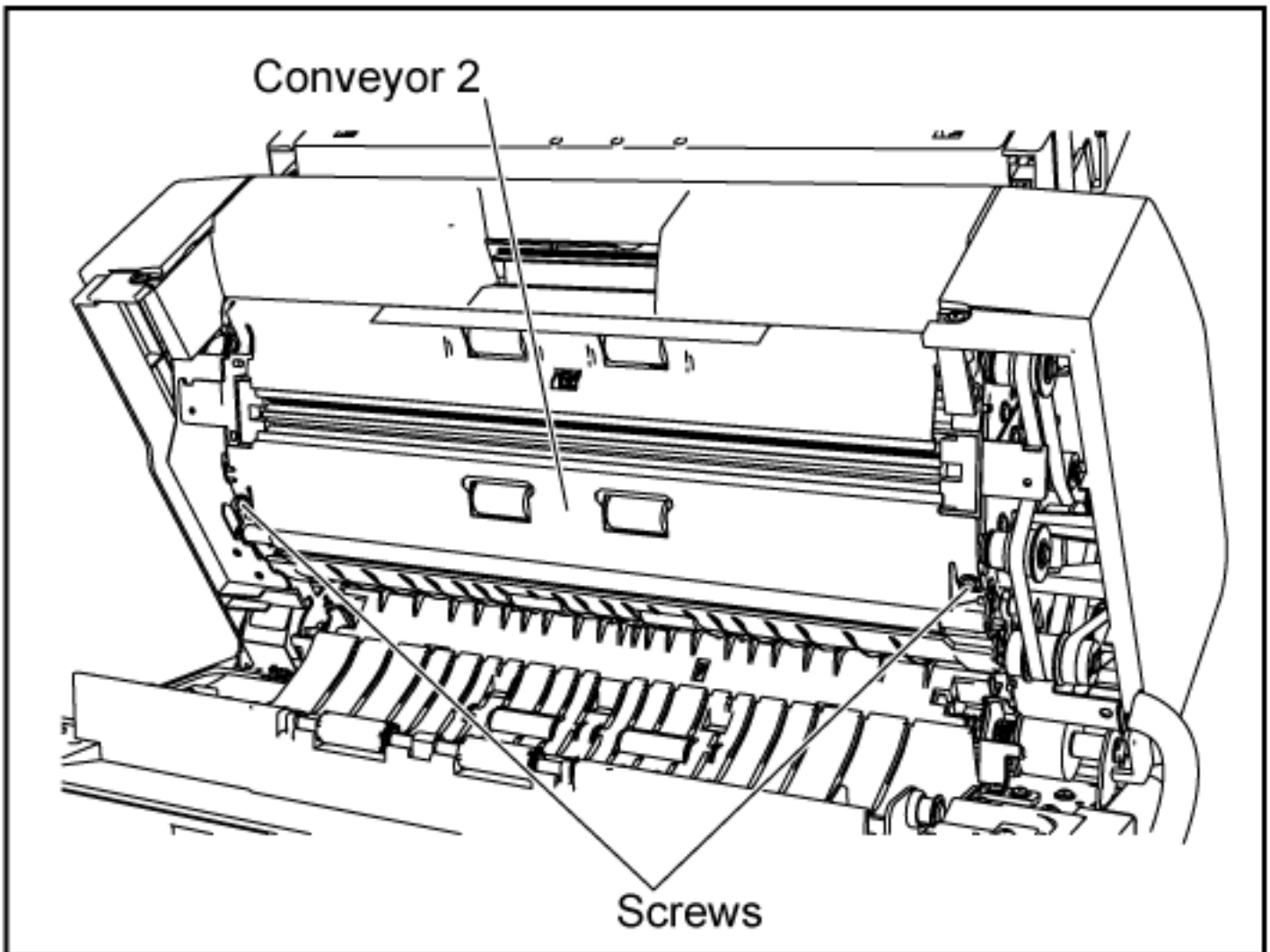
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.23 Conveyor 2

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Glass (B). (See 8.3.22.)
2. Remove the 2 screws to remove the Conveyor 2.

(Right Back View)



[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.24 Drive Roller 4

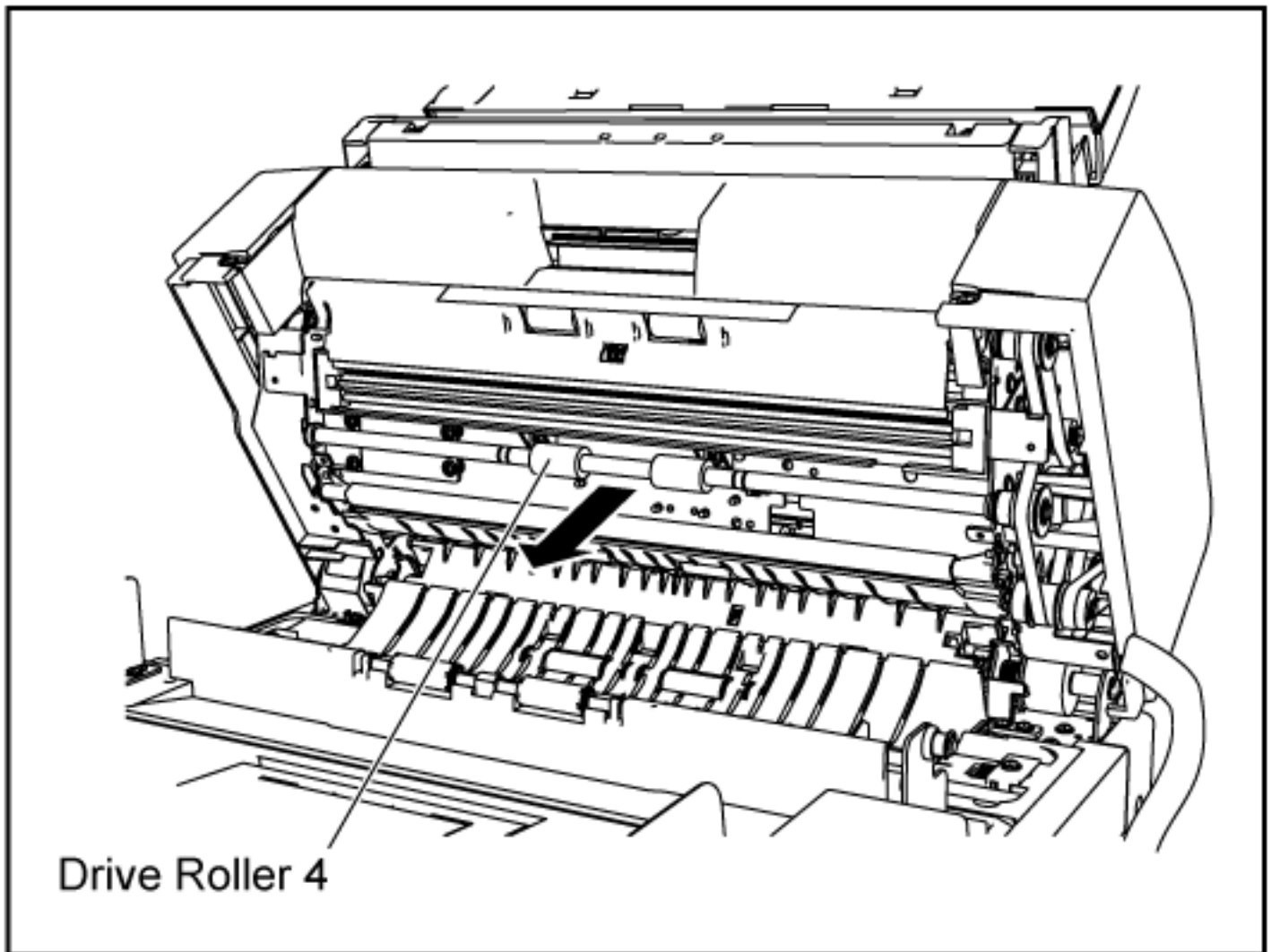
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Conveyor 2. (See 8.3.23.)
2. Pull out the Drive Roller 4 in the direction of the arrow.

Reassembling Note

When reassembling the Drive Roller 4, reattach the Drive Belt 3, paying attention to the Note (BELT LAYOUT) on 8.3.18.

(Right Back View)



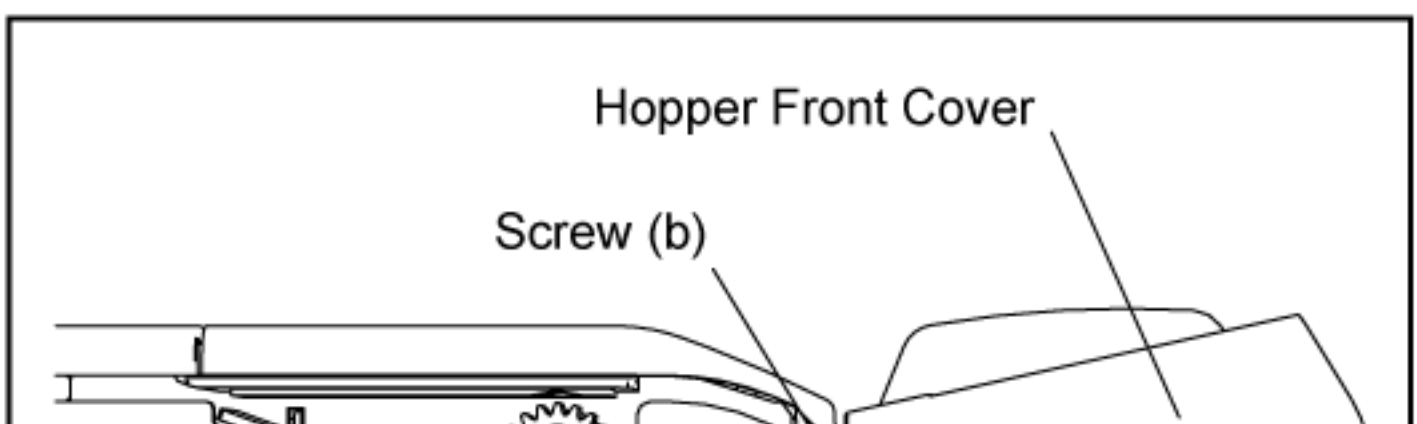
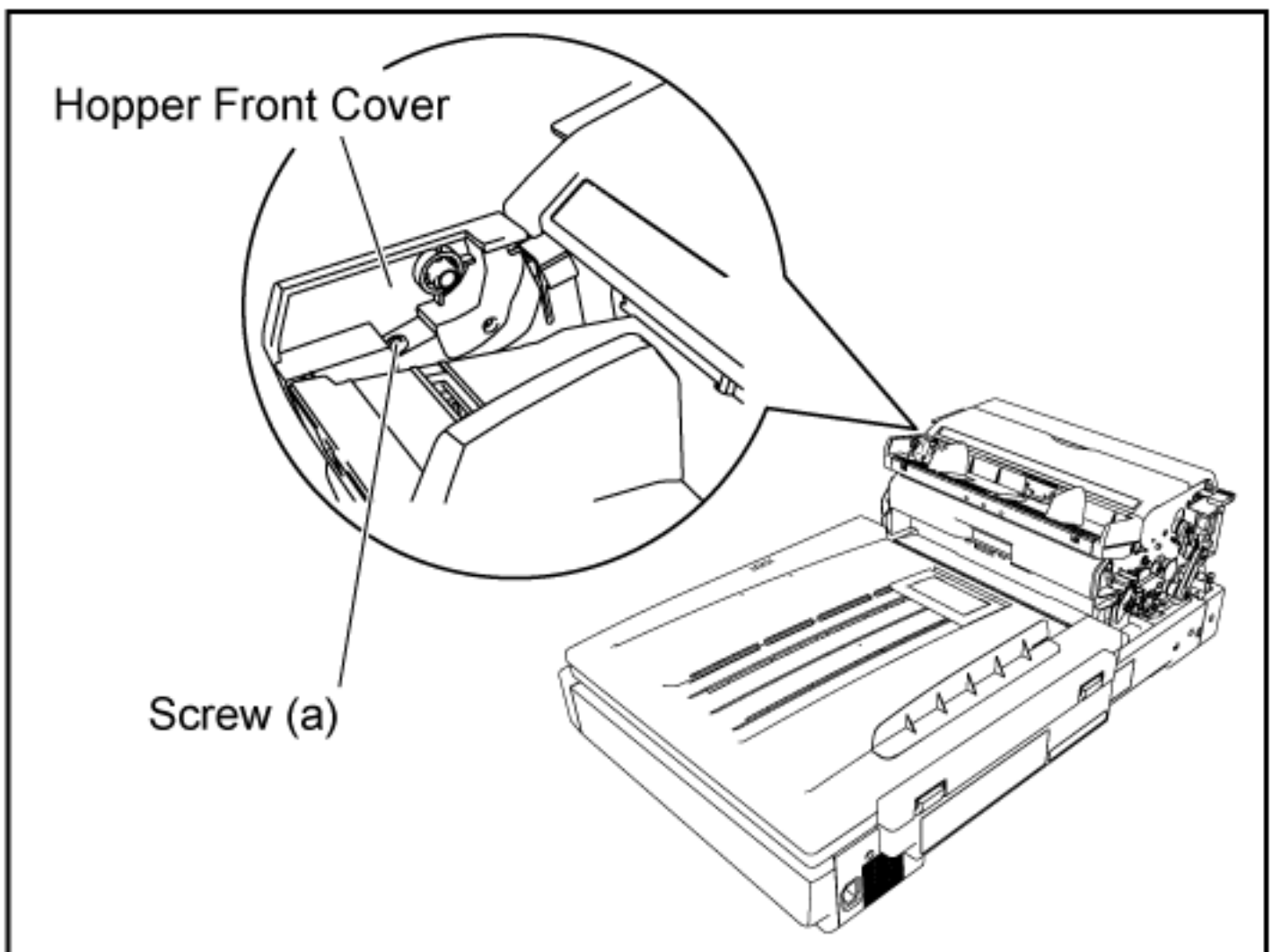
[TOP](#) [PREVIOUS](#) [NEXT](#)

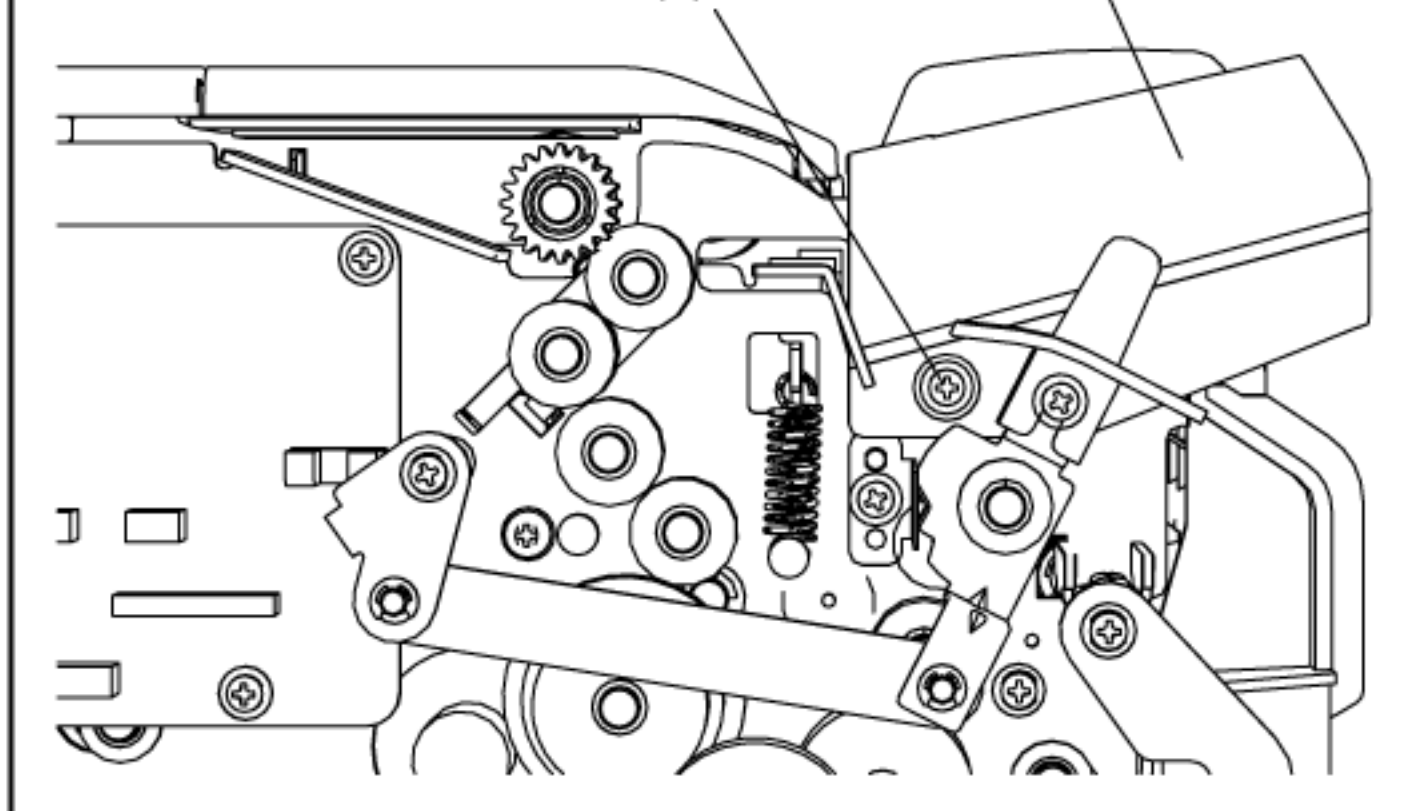
8.3.25 Hopper Front Cover

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper Tray. (See 8.3.8.)
2. Remove the ADF Cover (F). (See 8.3.12.)
3. Remove the 1 screw (a) and 1 screw (b) to release the Hopper Front Cover from the scanner.

(Front View)



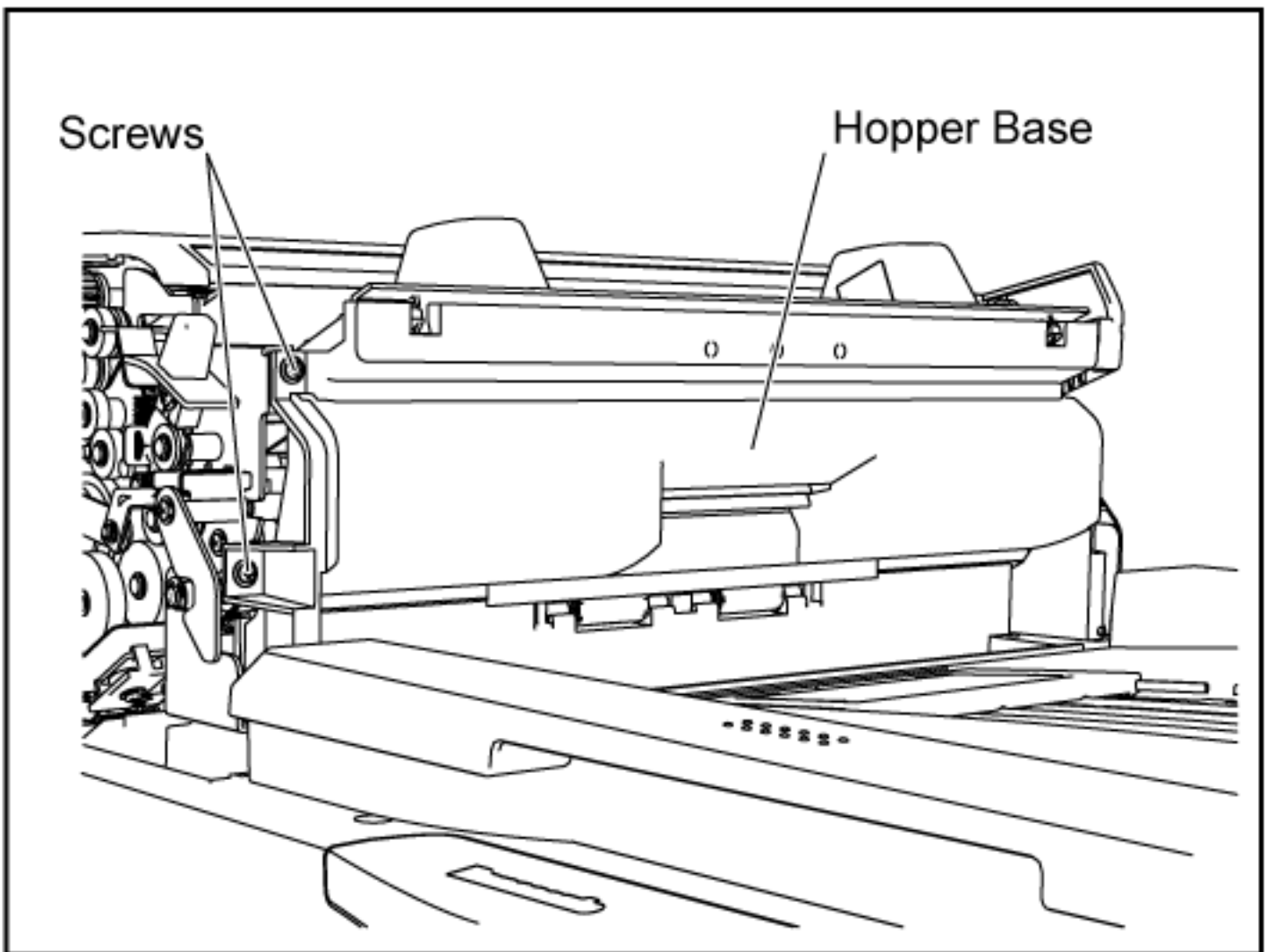


[TOP](#) [PREVIOUS](#) [NEXT](#)

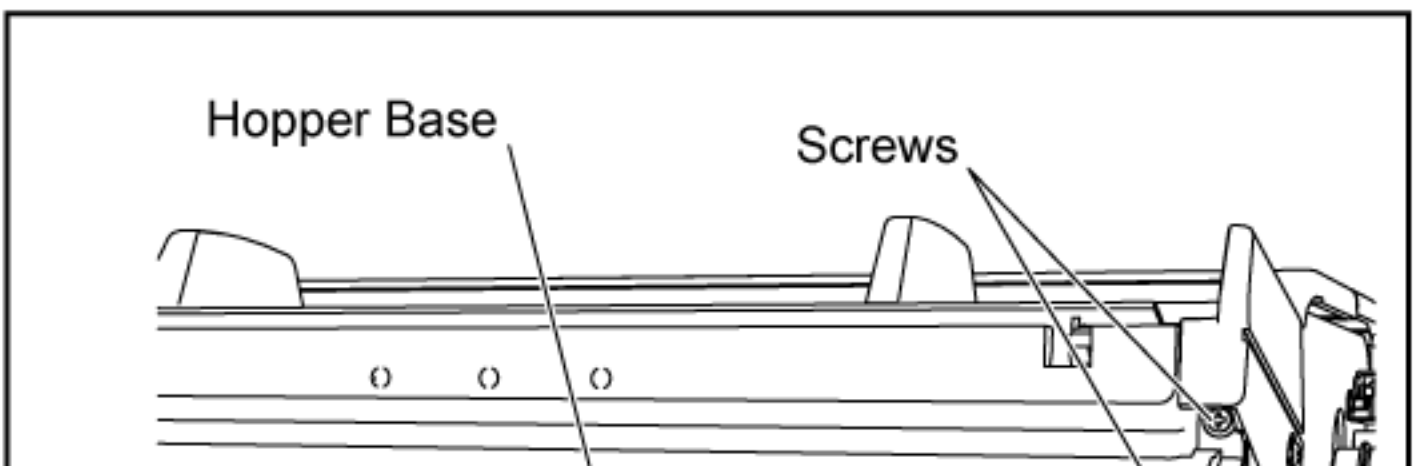
8.3.26 Hopper Base

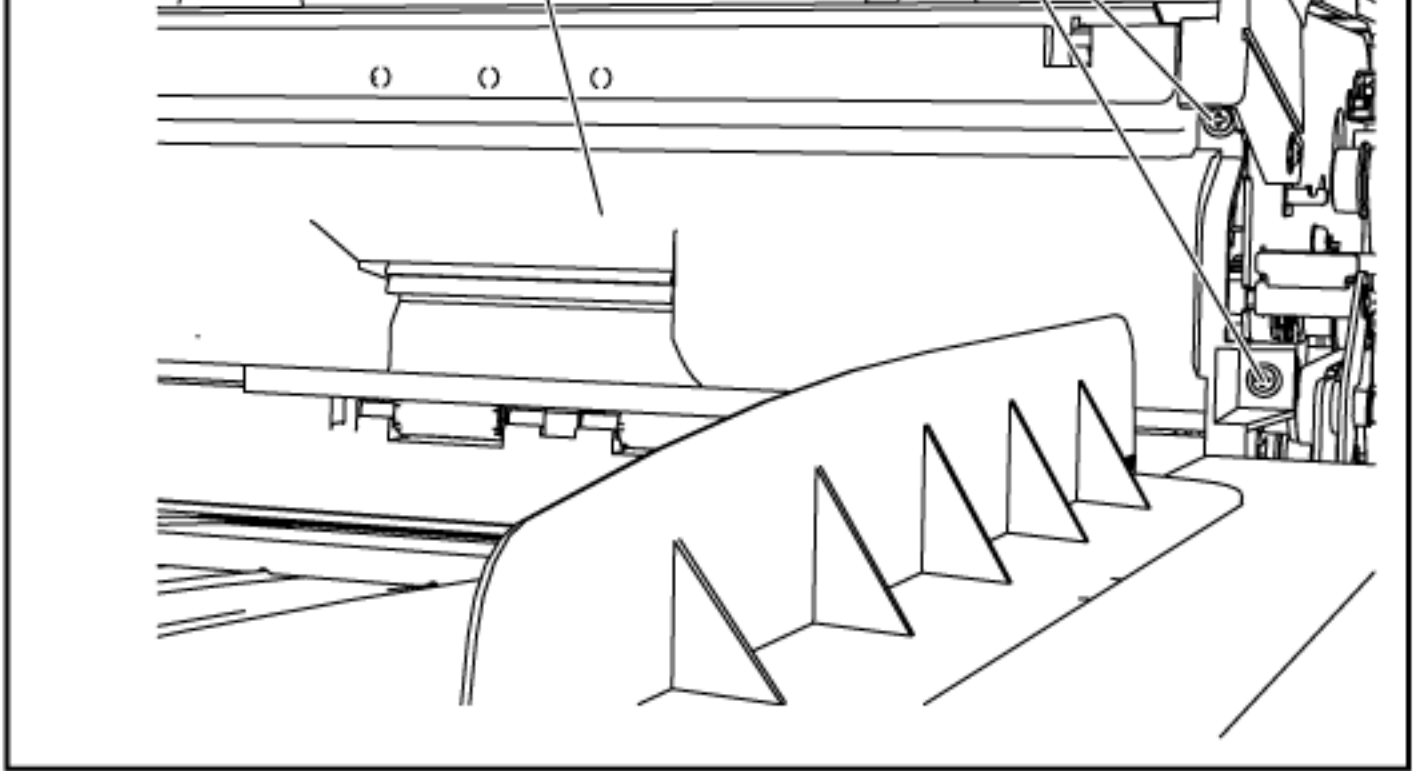
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Cover (B). (See 8.3.14.)
2. Remove the Hopper Front Cover. (See 8.3.25.)
3. Remove the 4 screws to release the Hopper Base from the scanner.



(Right Front View)





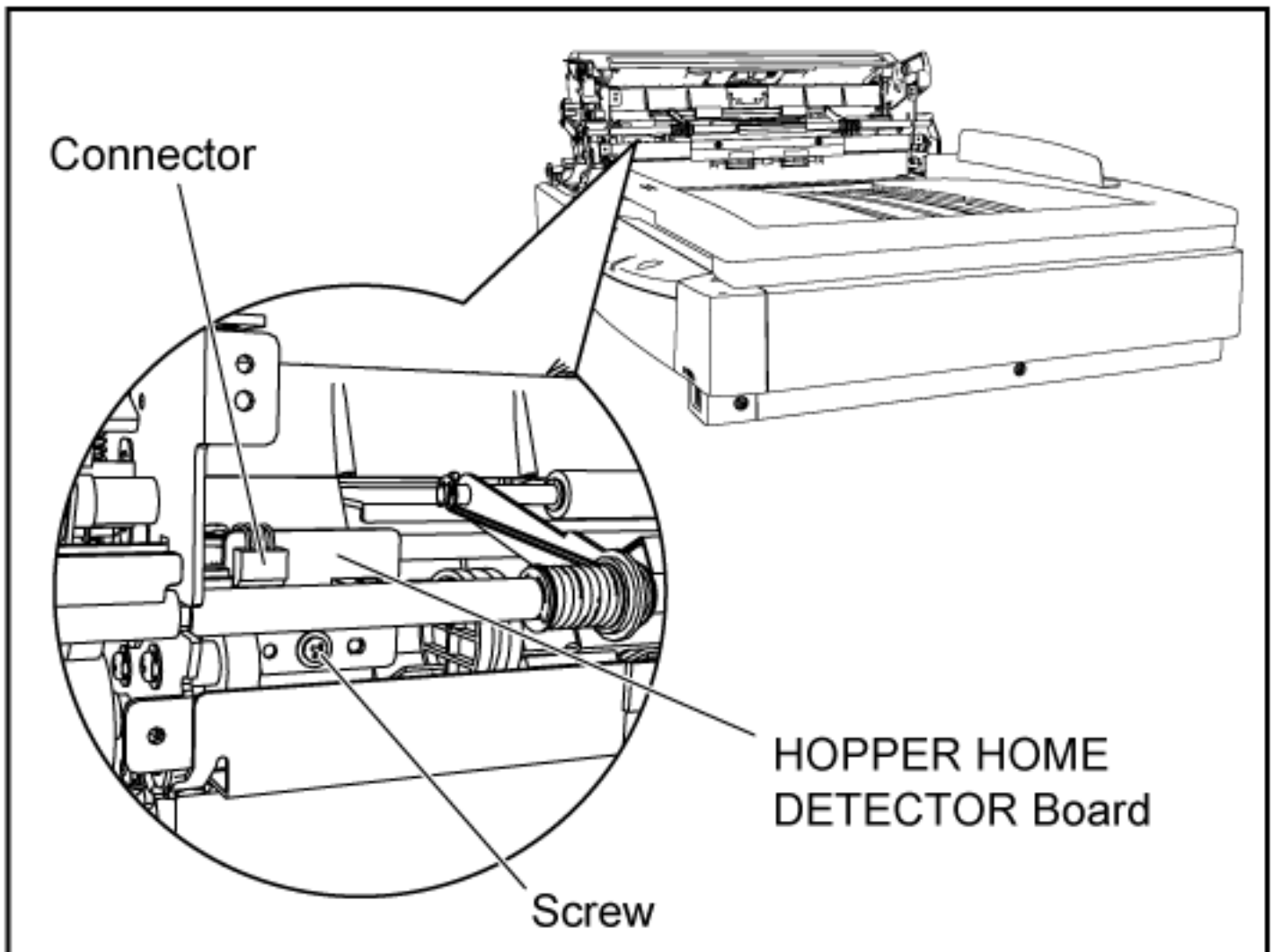
(Right Back View)

[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.27 HOPPER HOME DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Remove the Hopper Base. (See 8.3.26)
3. Remove the 1 screw and 1 connector (CN5007) on the HOPPER HOME DETECTOR Board.

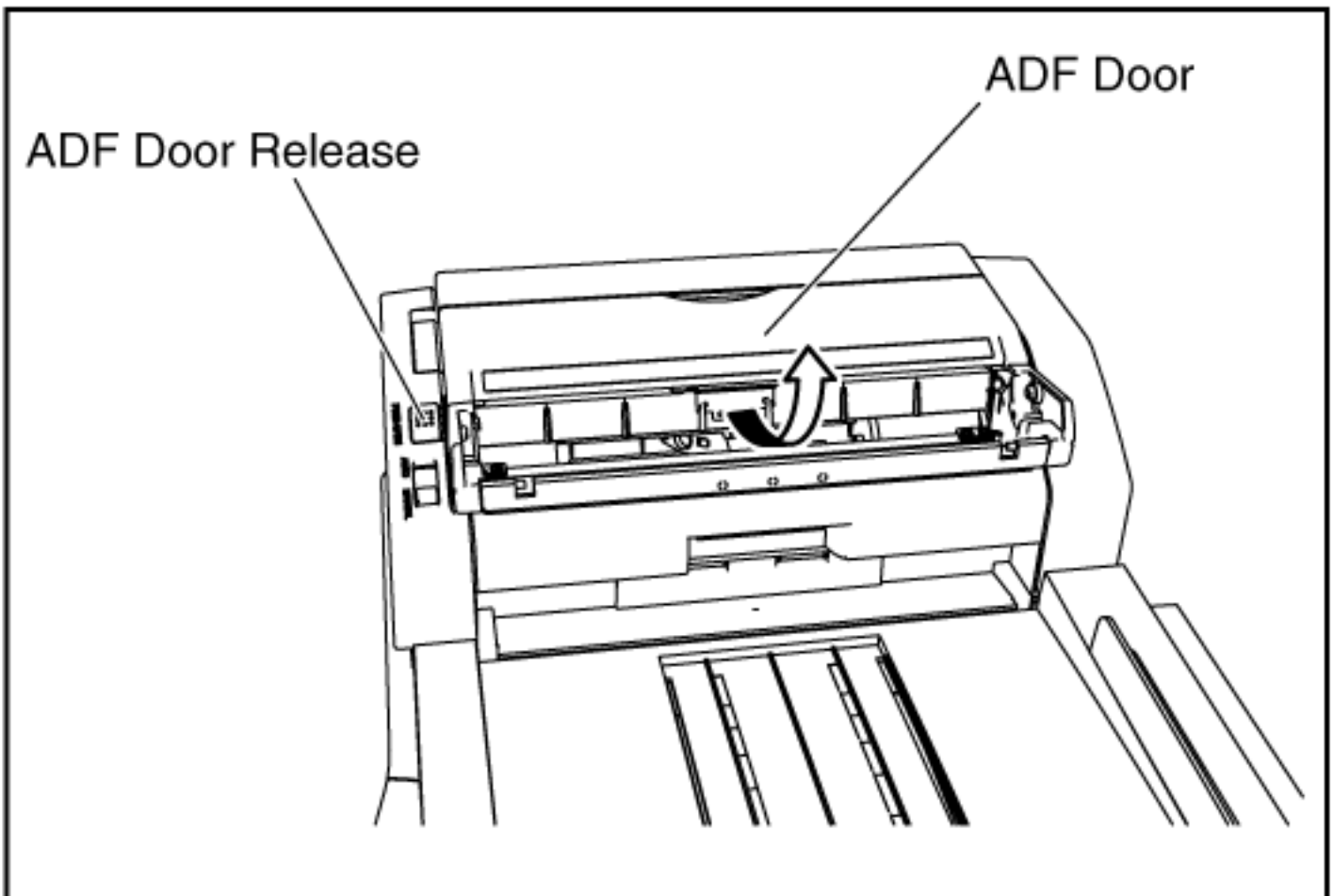


[TOP](#) [PREVIOUS](#) [NEXT](#)

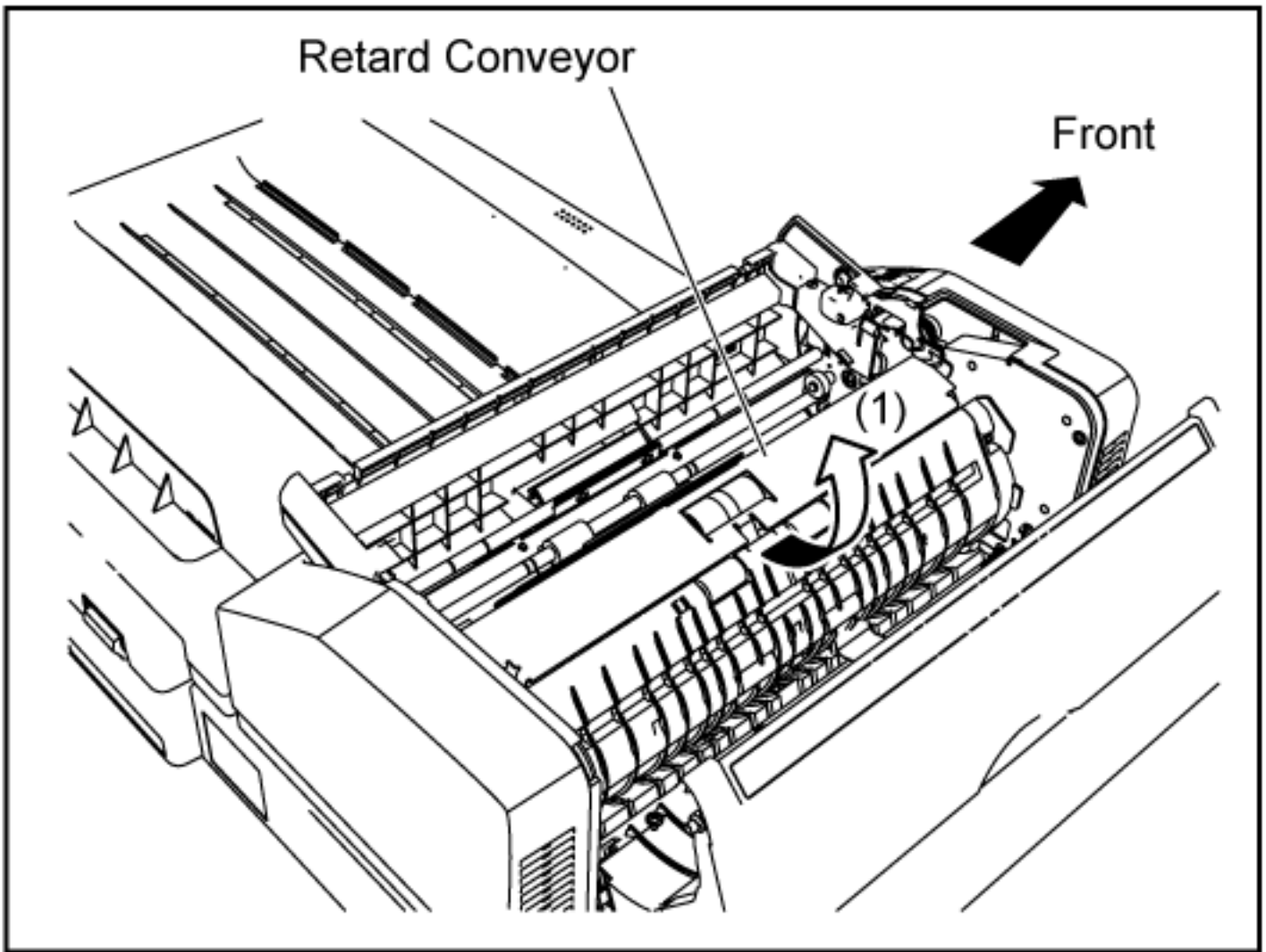
8.3.28 Retard Conveyor

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Push the ADF Door Release to open the ADF Door.

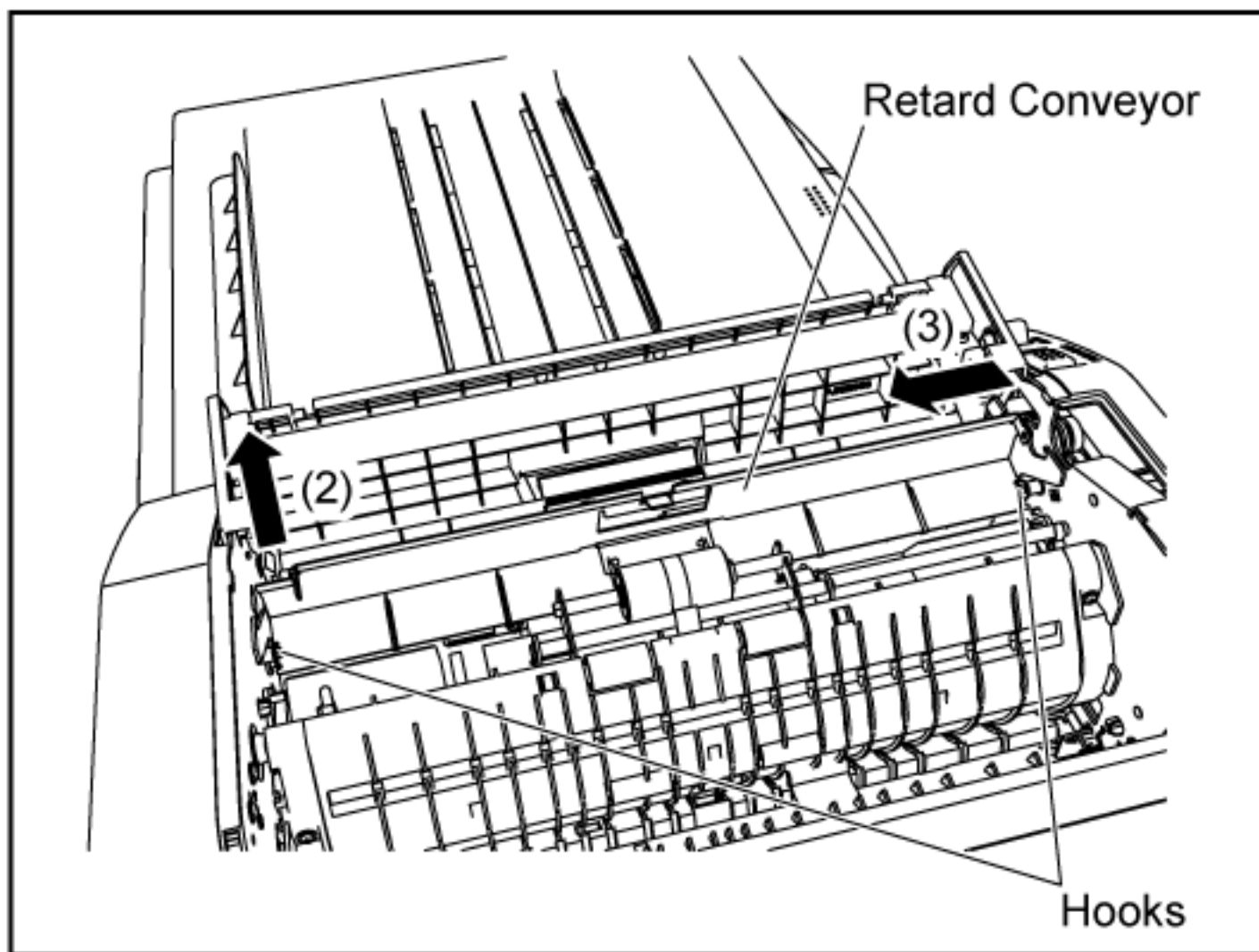


1. Open the Retard Conveyor in the direction of the arrow (1).



1. Unlock the hooks on the both sides while forcing the Retard Conveyor in direction of the arrow (2) and arrow (3) to release the conveyor from the scanner.

(Top Left View)



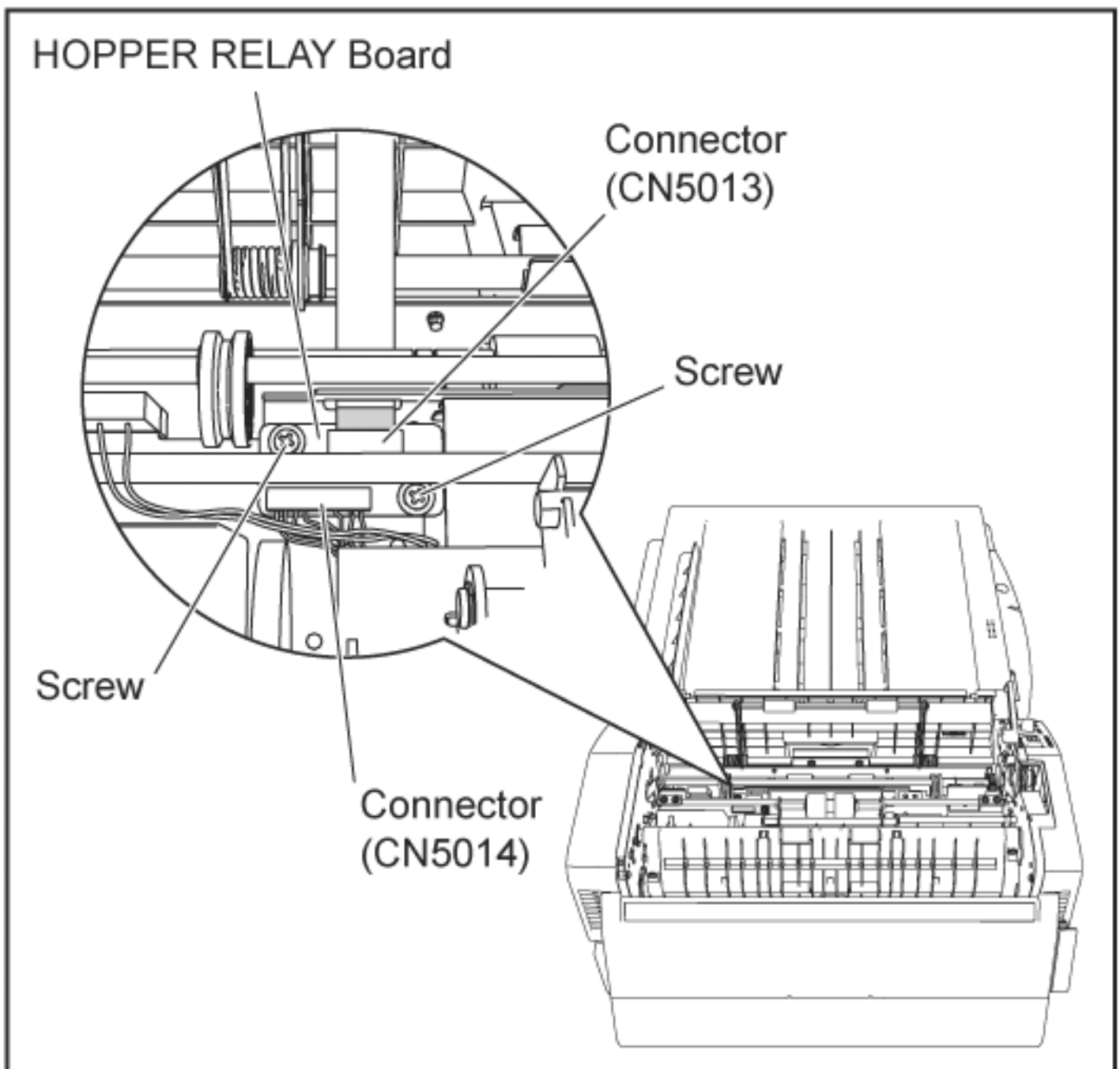
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.29 HOPPER RELAY Board

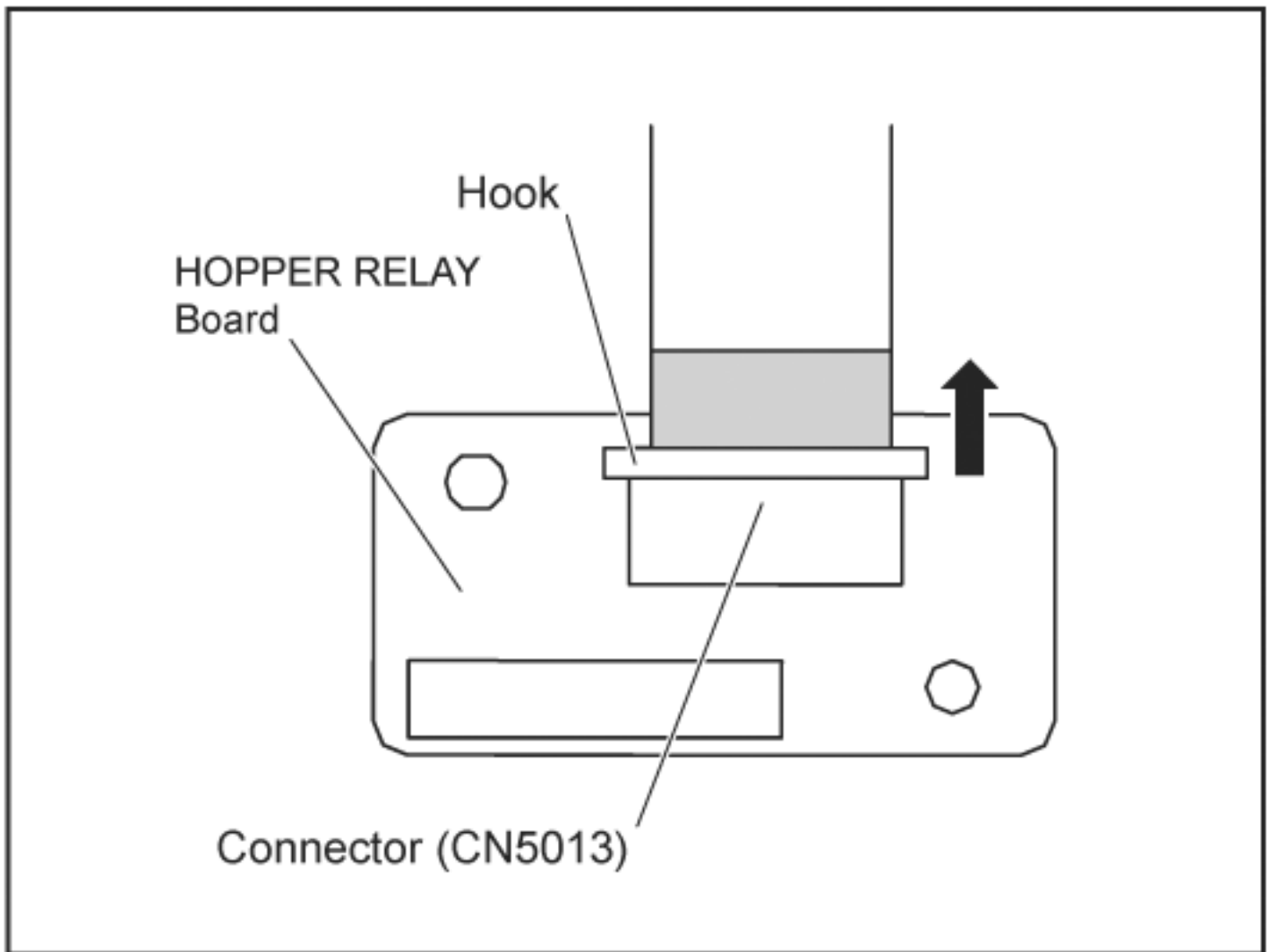
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Remove the Hopper Base. (See 8.3.26.)
3. Remove the Retard Conveyor. (See 8.3.28.)
4. Remove the 2 screws and 1 connector (CN5014).

(Left Side View)



1. Unlock the hook in the direction of the arrow and disconnect the connector (CN5013).



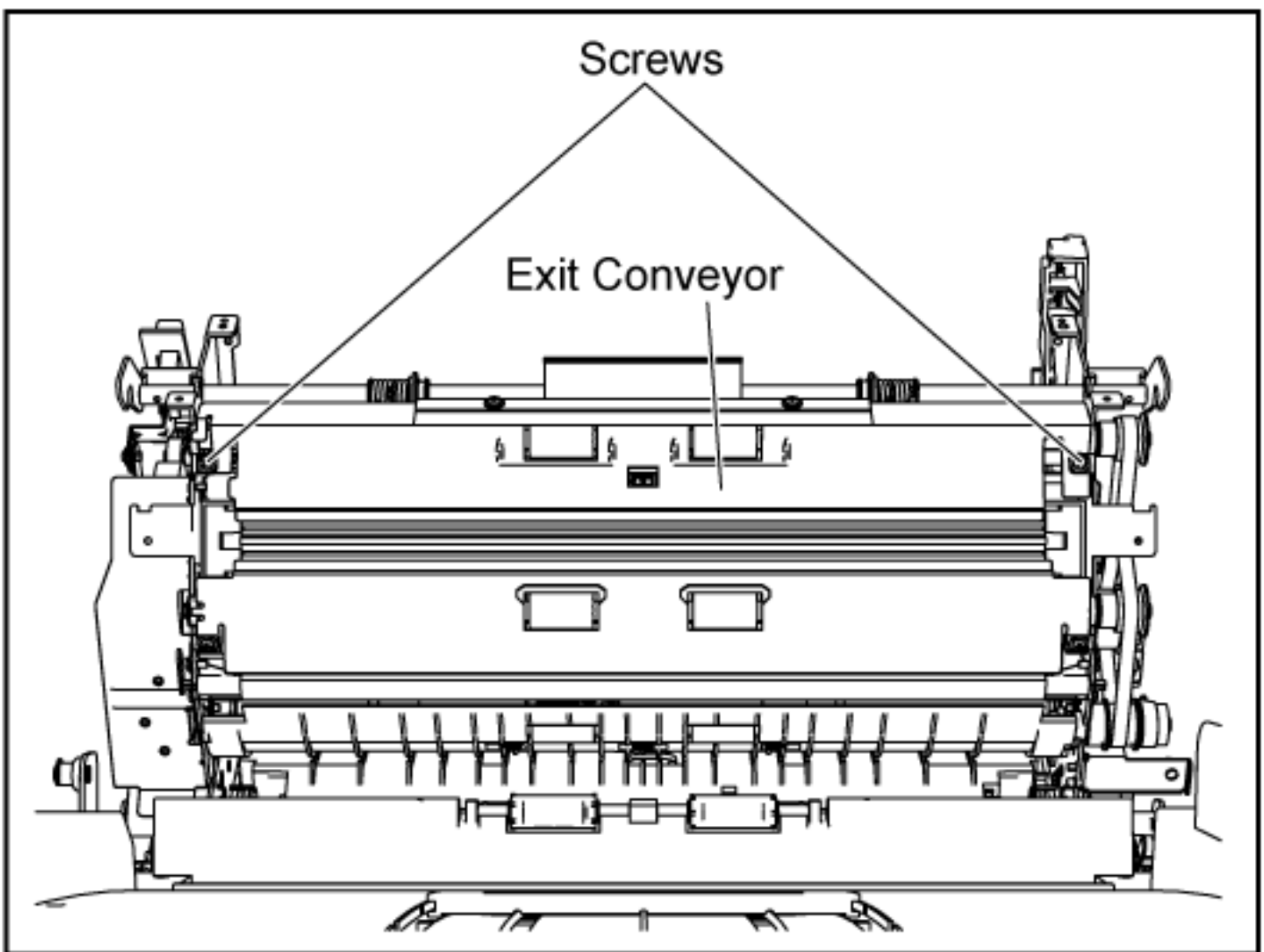
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.30 Exit Conveyor

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the ADF Glass (B). (See 8.3.22.)
2. Remove the Hopper Base. (See 8.3.26.)
3. Remove the 2 screws.

(Right Side View)



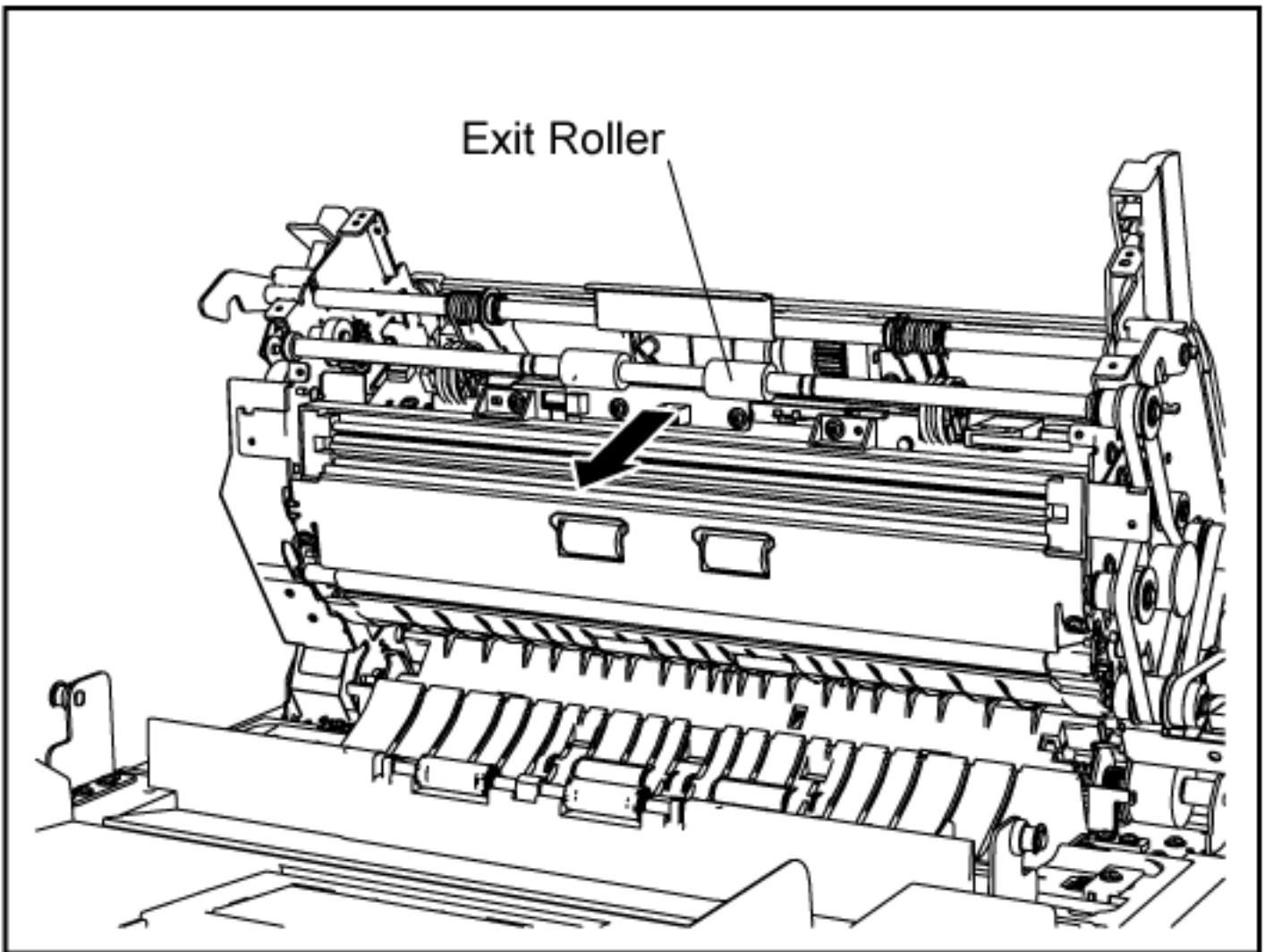
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.31 Exit Roller

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Exit Conveyor. (See 8.3.30.)
2. Pull out the Exit Roller in the detection of arrow.

(Right Back View)

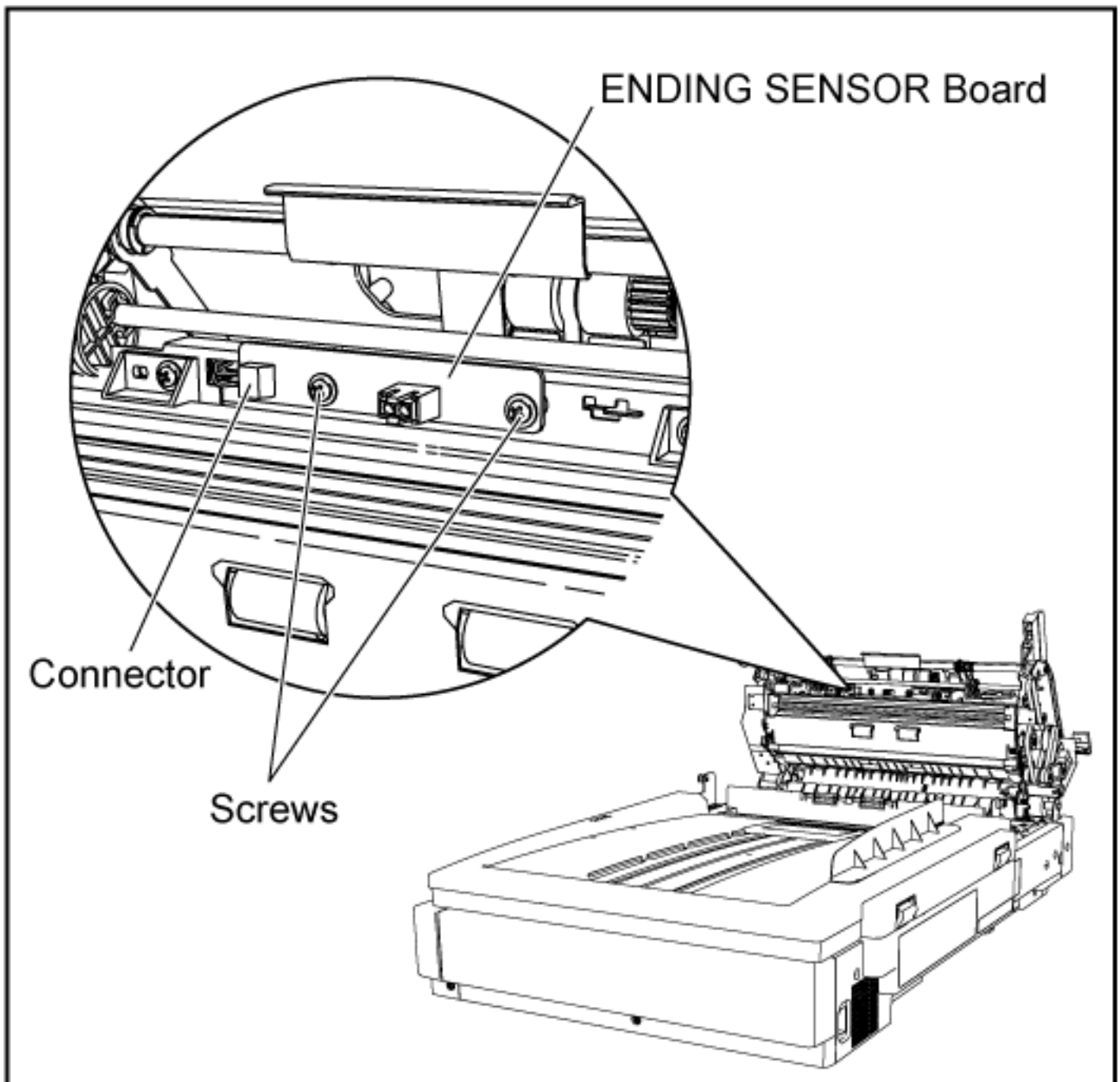


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.32 ENDING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Exit Rollers. (See 8.3.31.)
2. Remove the 2 screws and 1 connector (CN5015) on the ENDING SENSOR Board.

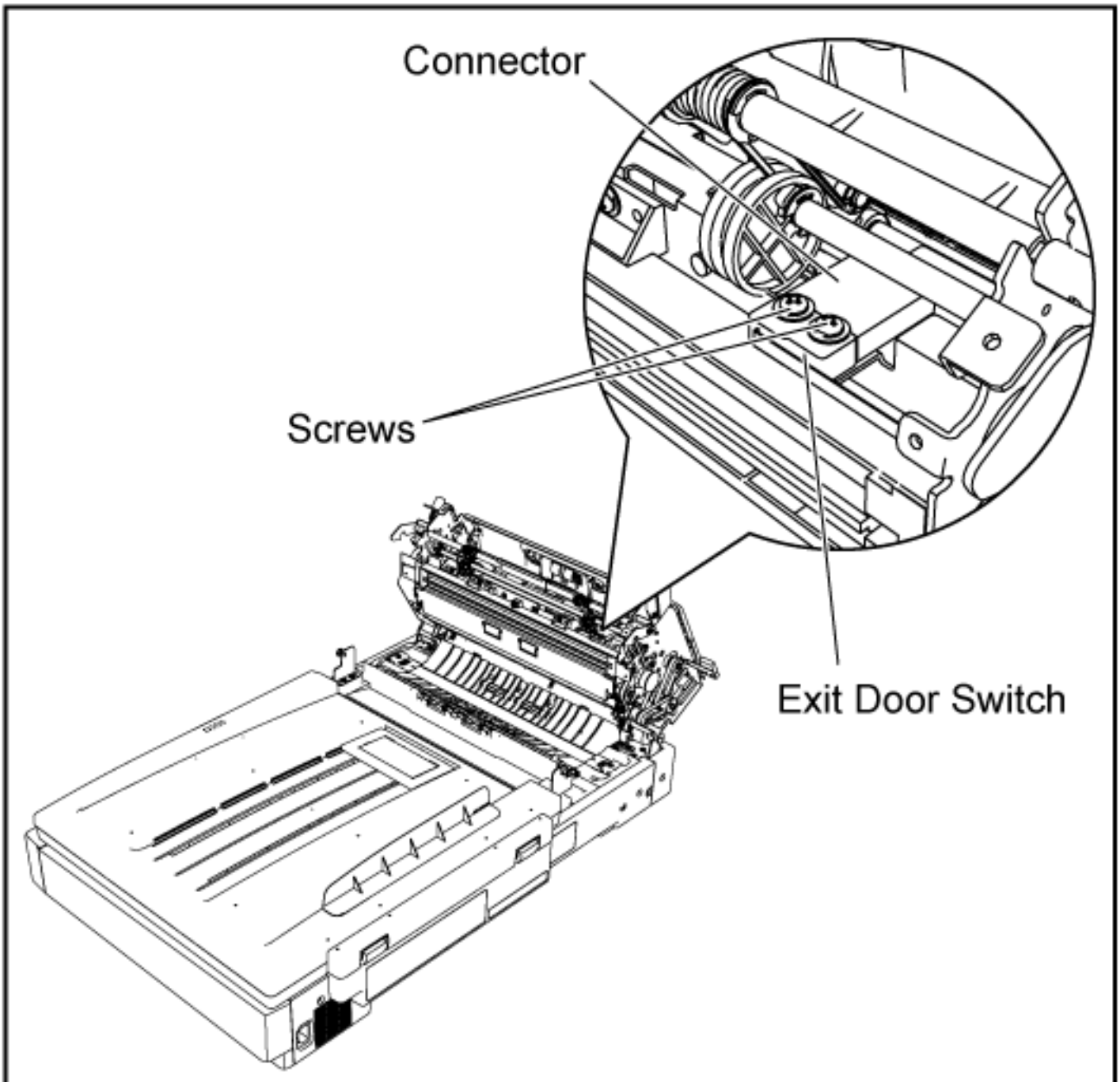


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.33 Exit Door Switch

[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Exit Roller. (See 8.3.31.)
2. Remove the 2 screws and 1 connector.

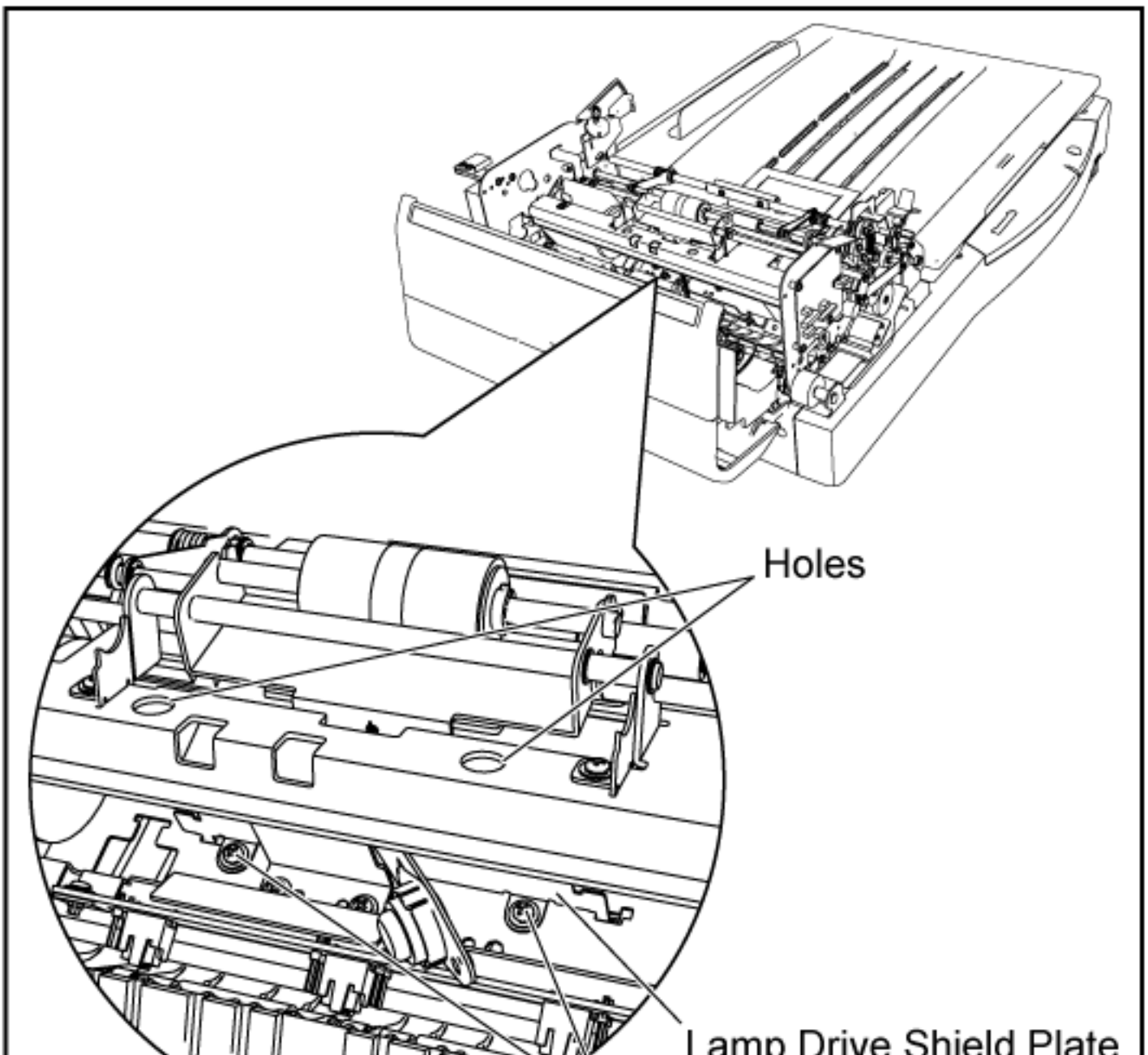


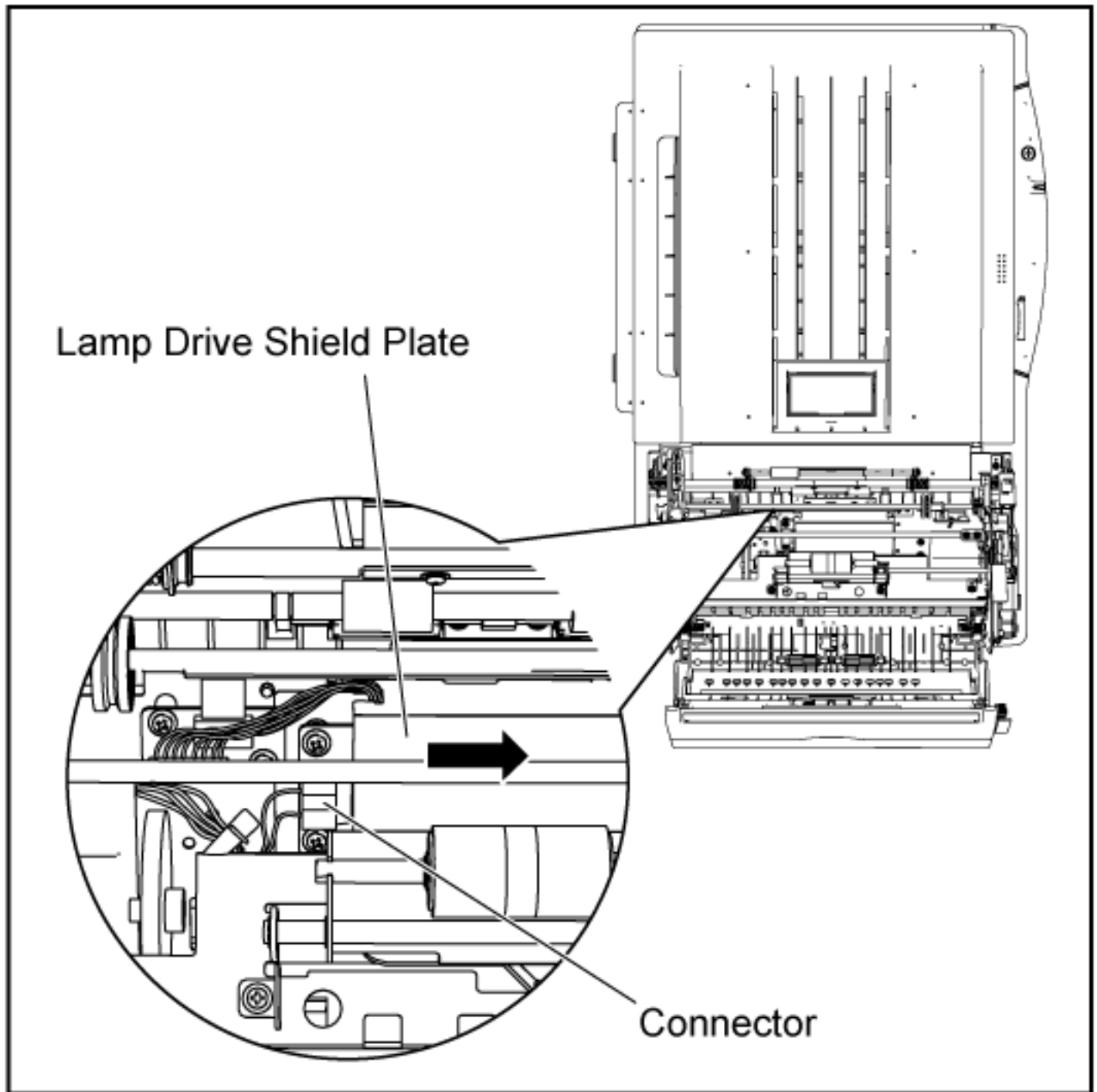
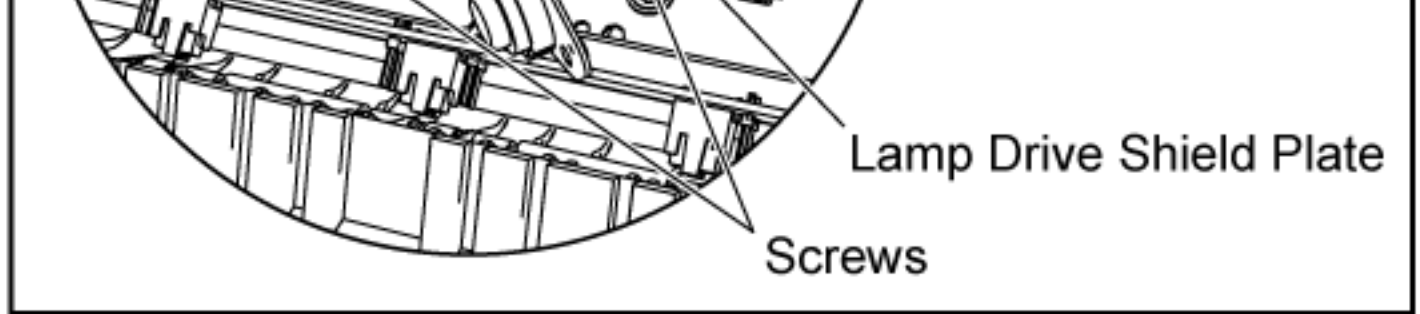
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.34 CIS (B)& CIS RELAY Board

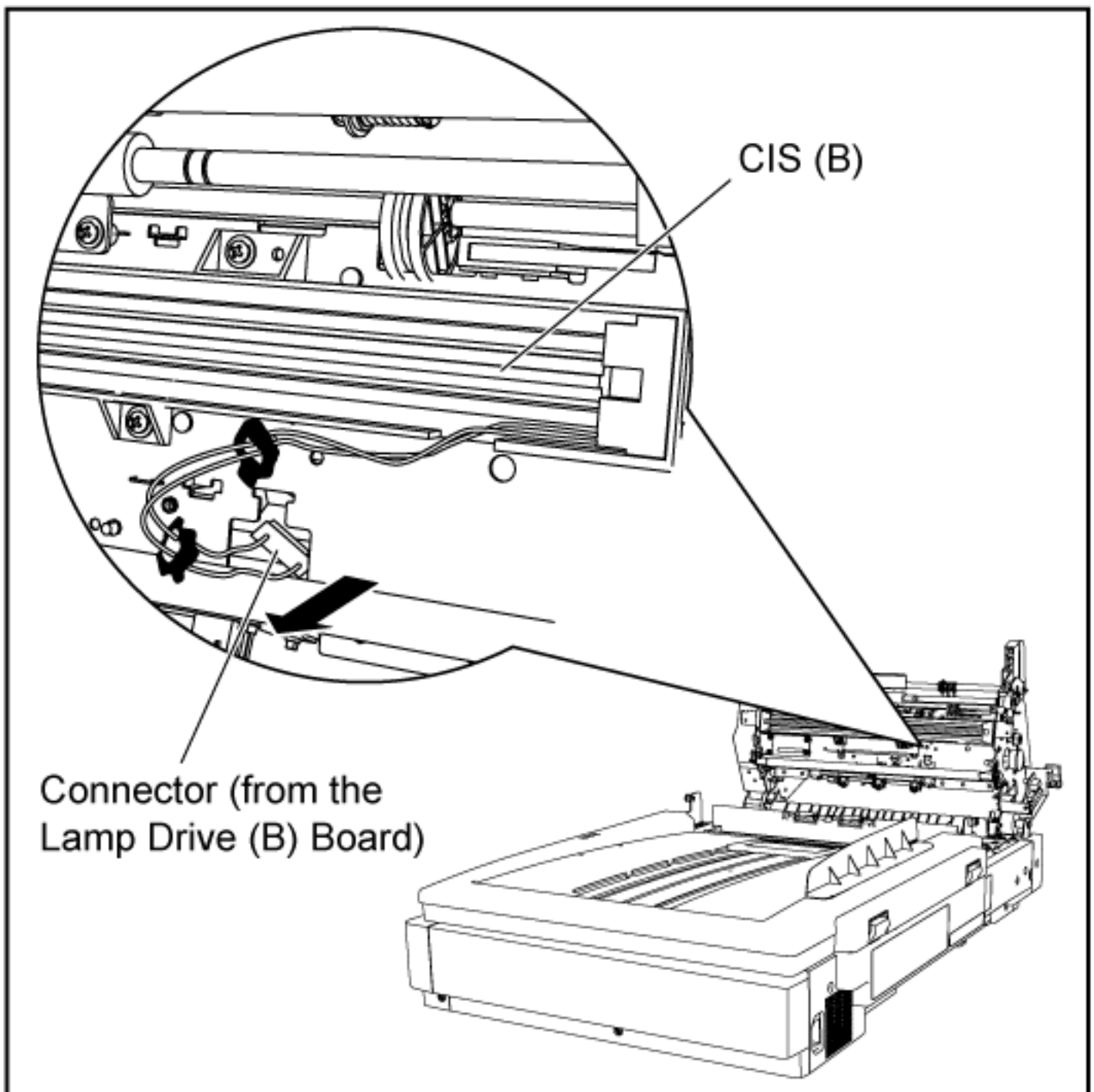
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Remove the Drive Rollers 1, 2, 3. (See 8.3.19.)
3. Remove the Drive Roller 4. (See 8.3.24.)
4. Remove the Retard Conveyor. (See 8.3.28.)
5. Remove the Exit Conveyor. (See 8.3.30.)
6. Remove the 2 screws through the holes and slide the Lamp Drive Shield Plate slightly in order to remove the 1 connector from the Lamp Drive (B) Board to the CIS (B).

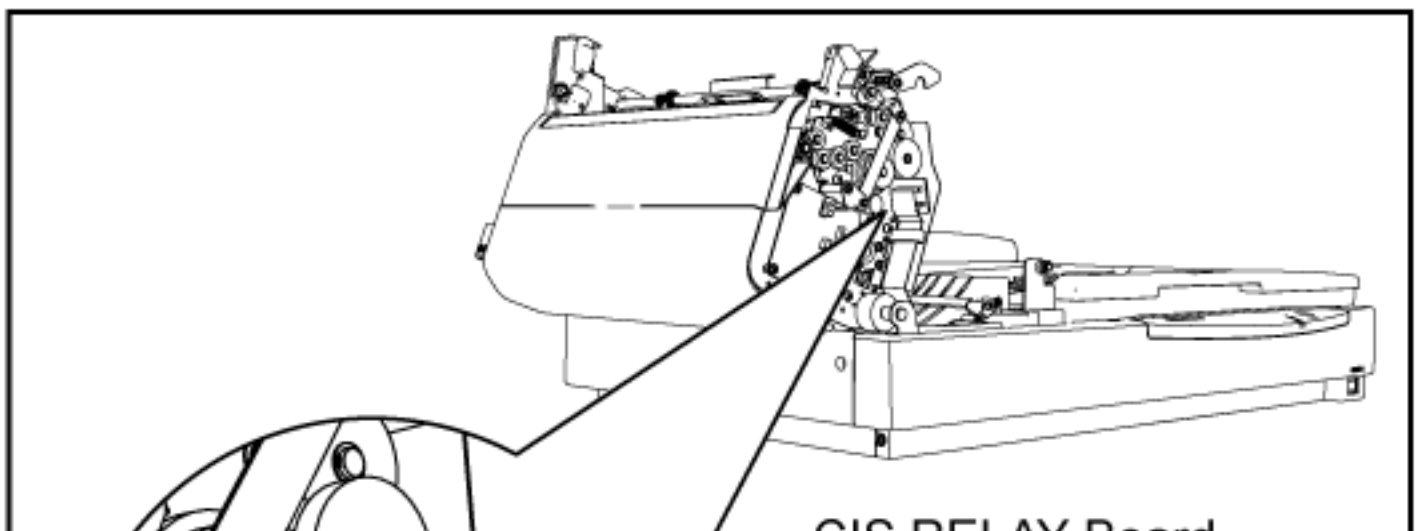


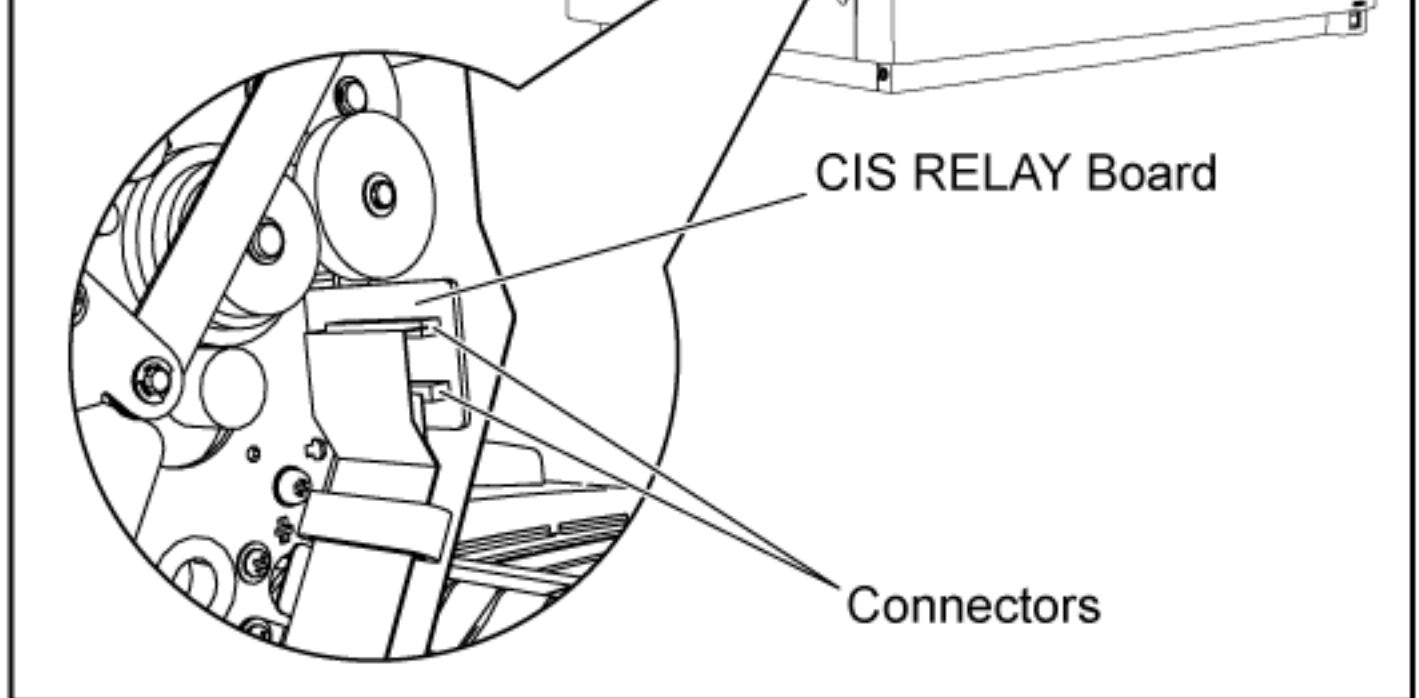


1. Remove the 1 connector to the CIS (B) on the Lamp Drive (B) Board and pull out it in the direction of the arrow.

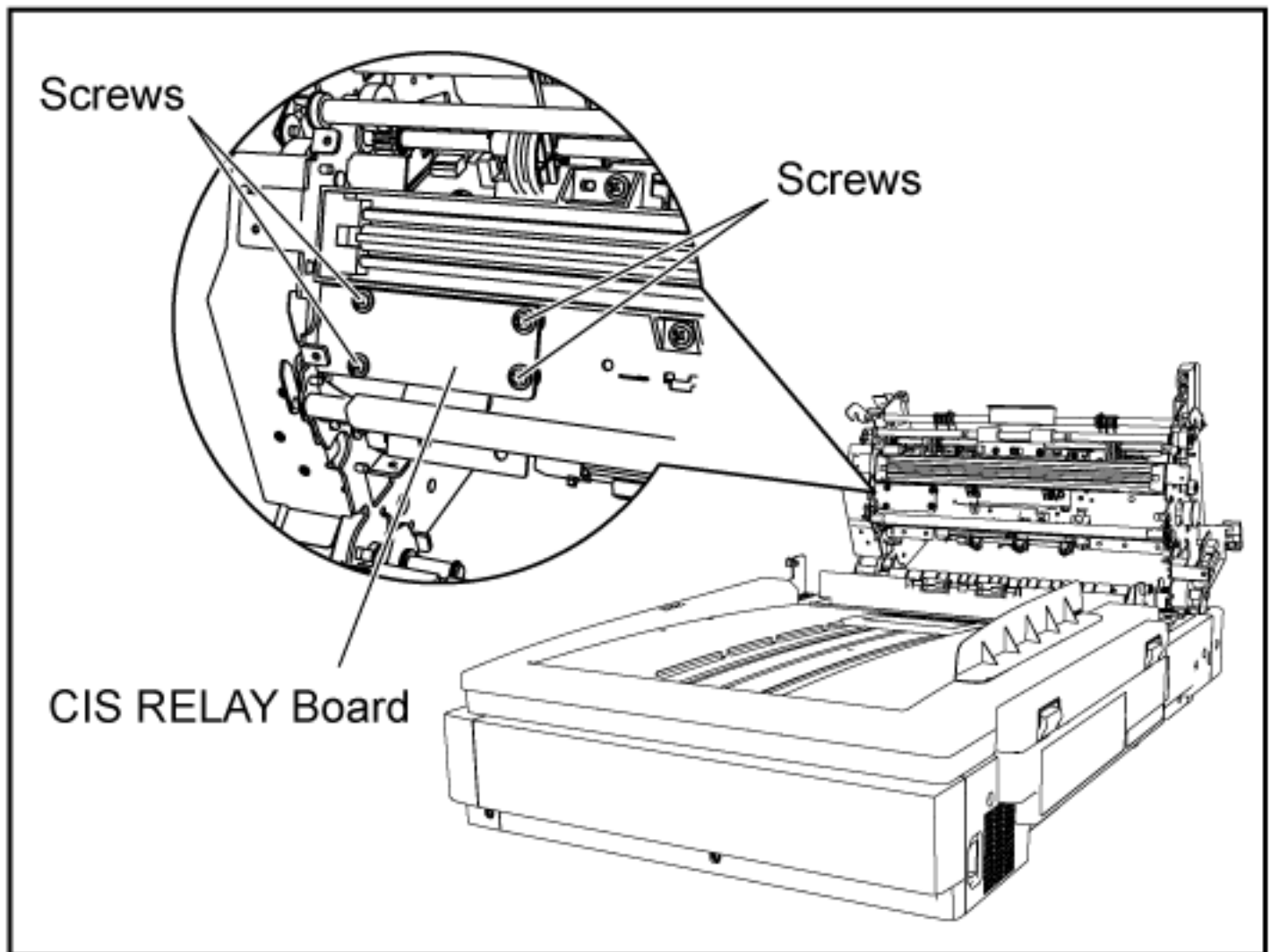


1. Remove the 2 connectors (CN3005 and CN3004) and 4 screws on the CIS RELAY Board.



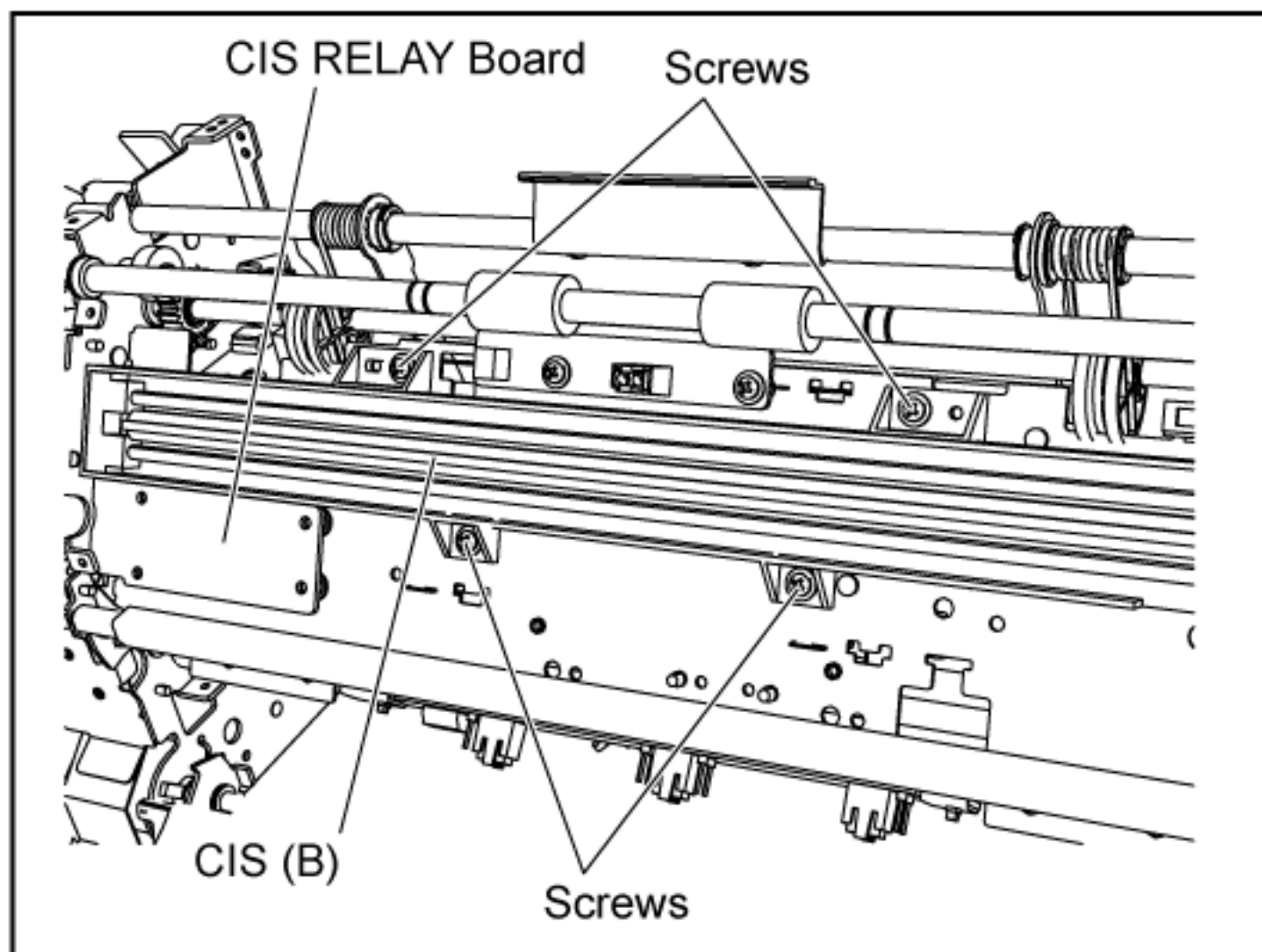


(Front View)

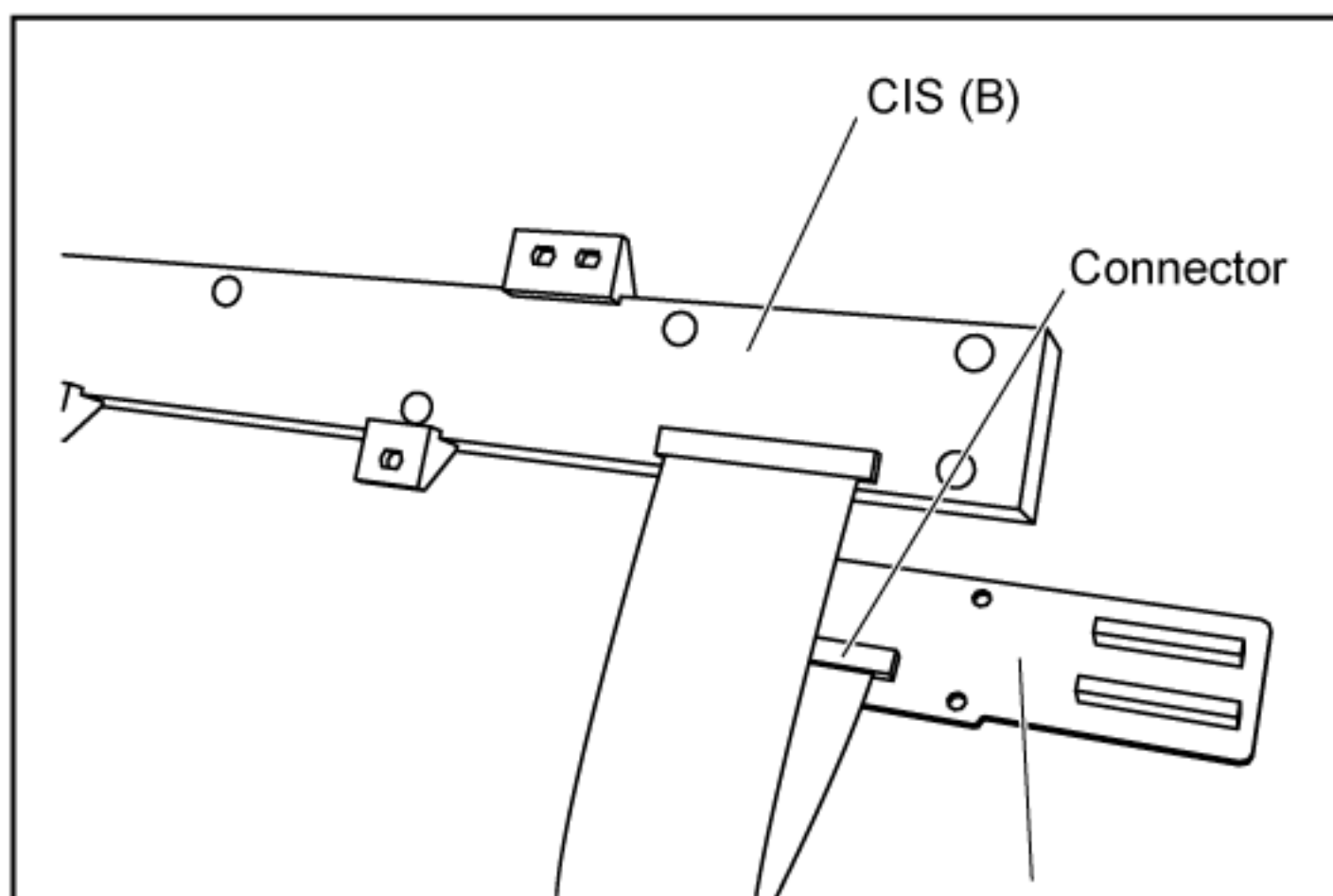


(Right Back View)

1. Remove the 4 screws on the CIS (B), and disconnect the 1 connector (CN3006) from the CIS (B) to the CIS RELAY Board.



(Right Back View)



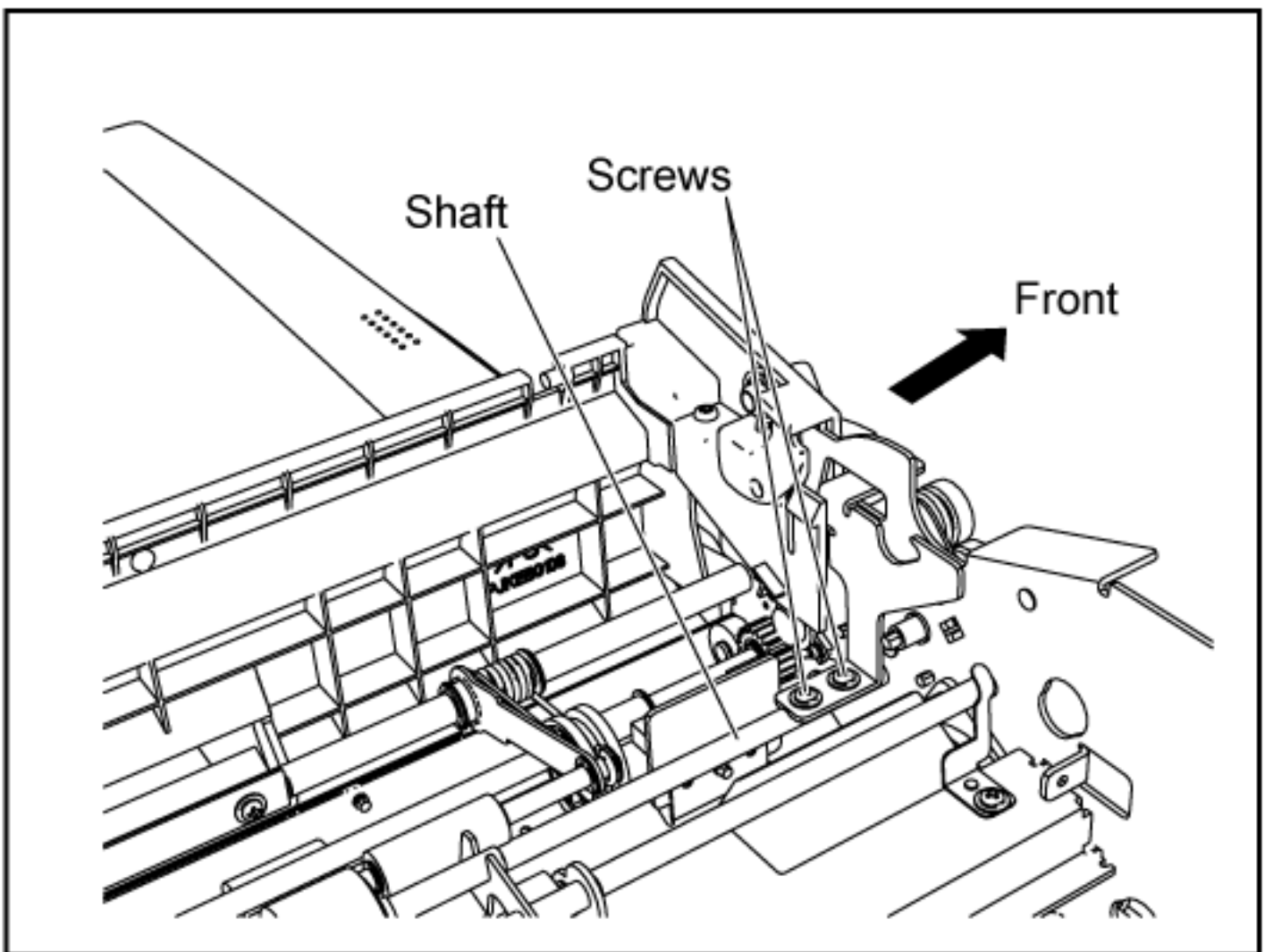


[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.35 Lamp Drive (B) Board

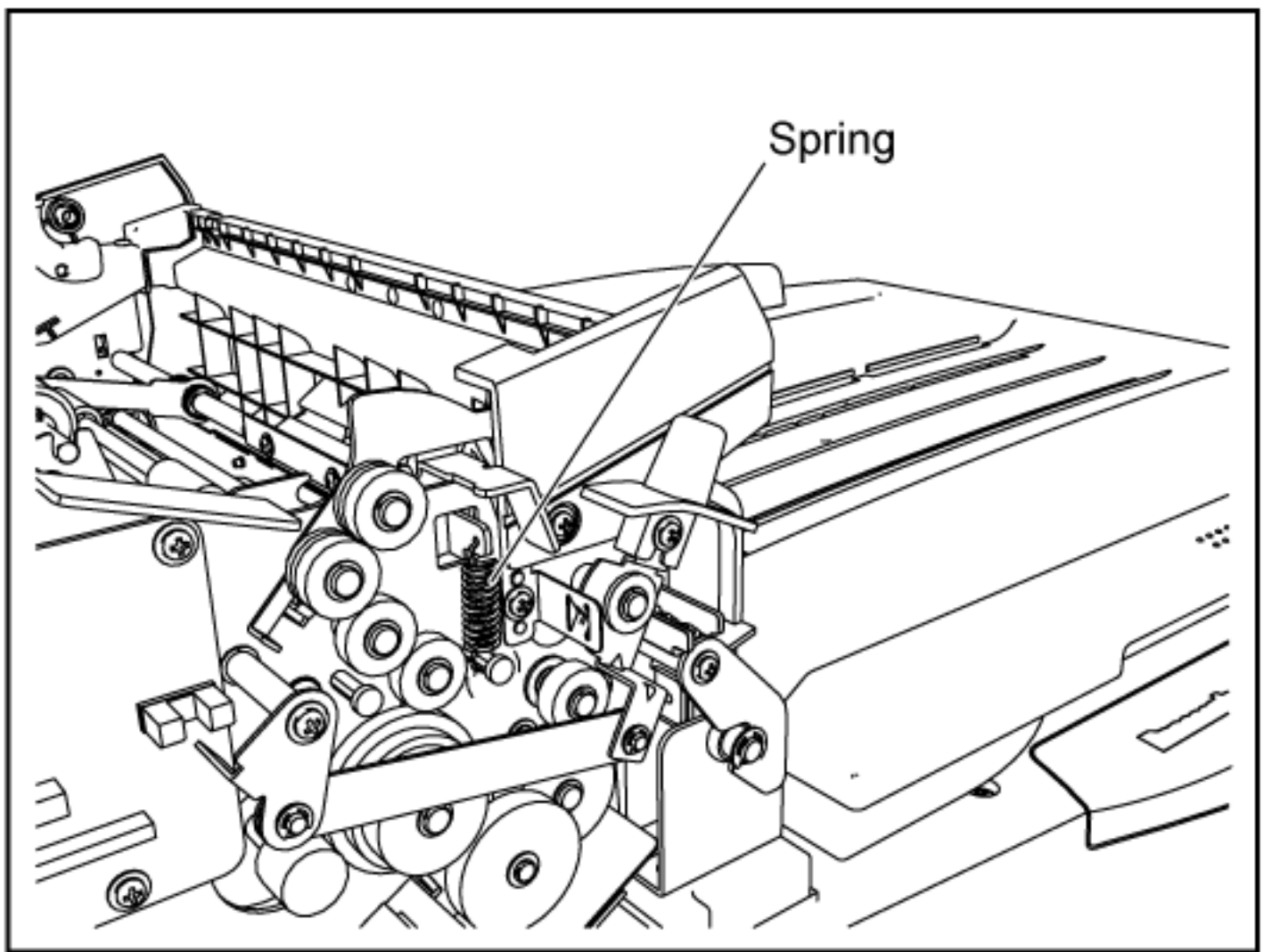
[TOP](#) [PREVIOUS](#) [NEXT](#)

1. Remove the Hopper. (See 8.3.9.)
2. Remove the Drive Rollers 1, 2, 3. (See 8.3.19.)
3. Remove the Retard Conveyor. (See 8.3.28.)
4. Remove the 2 screws on the Shaft.

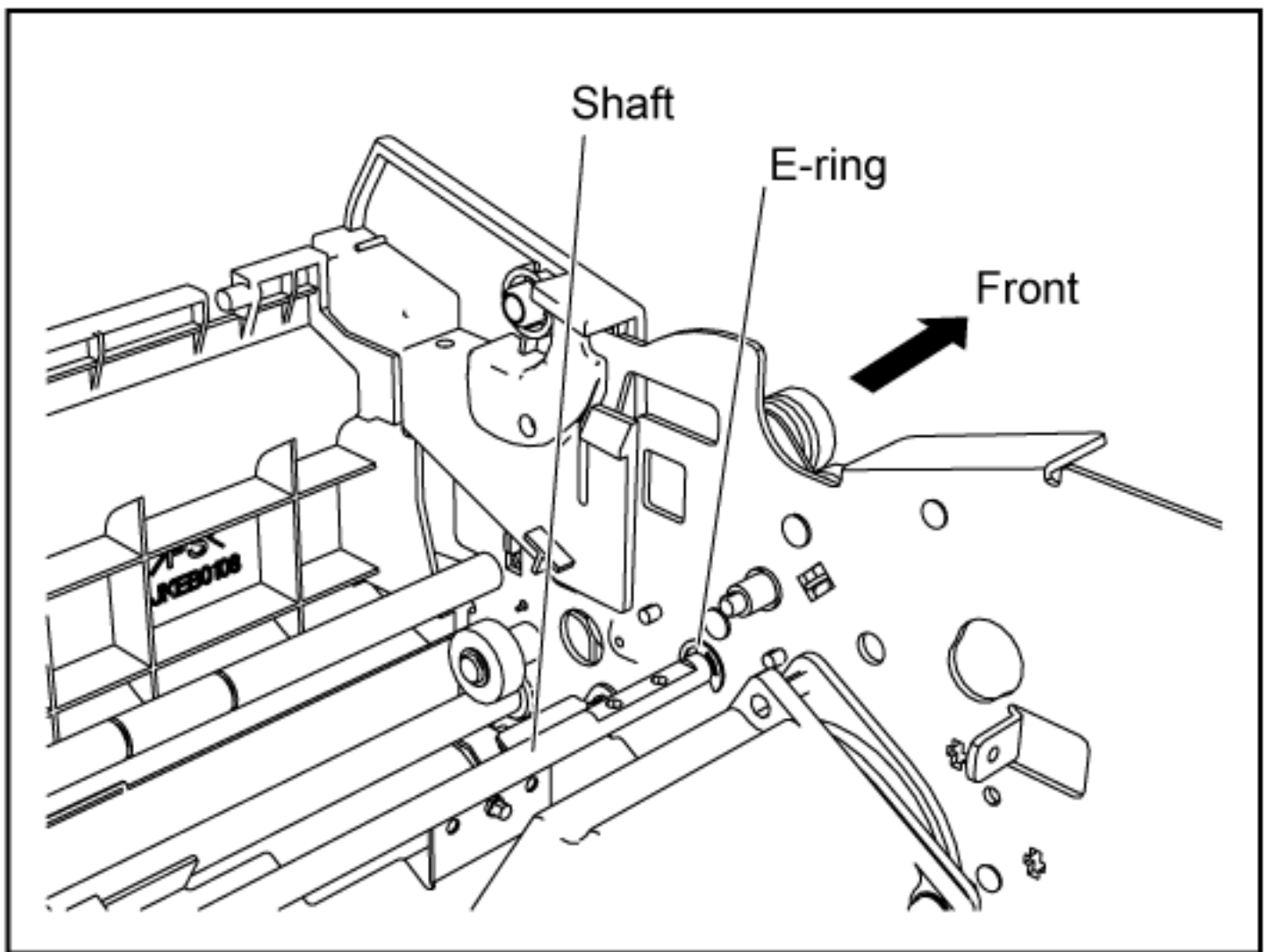


1. Release the spring.

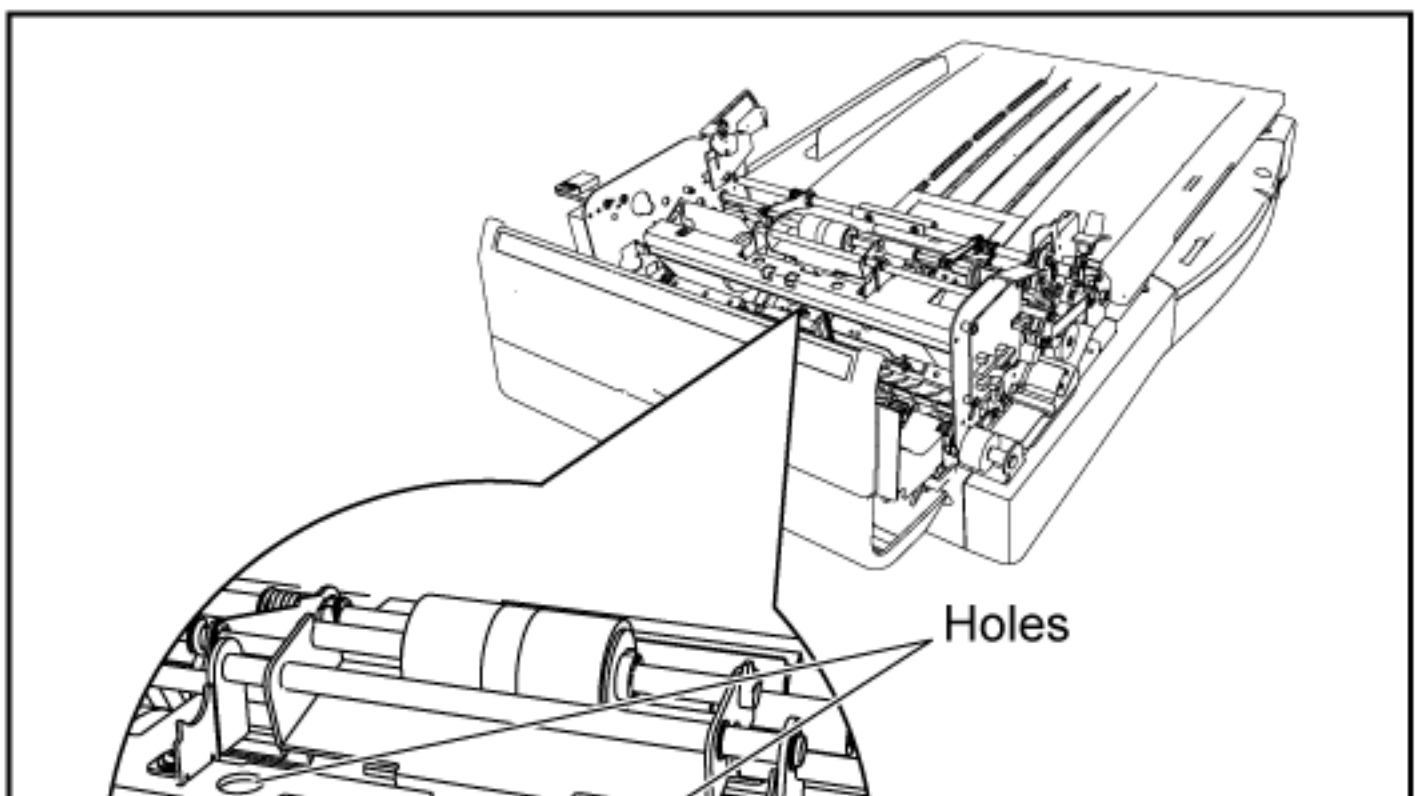
(Left Front View)

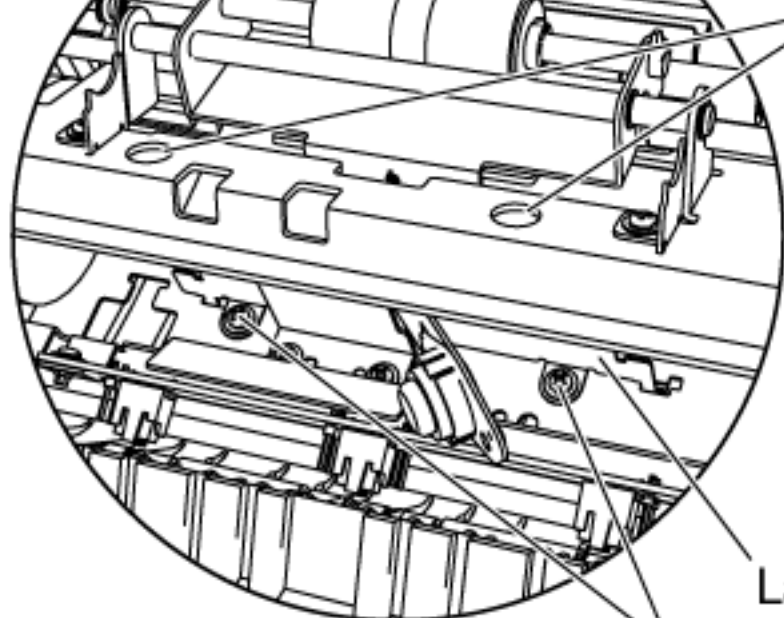


1. Remove the E-ring on the front inner side to pull out Shaft from the scanner.

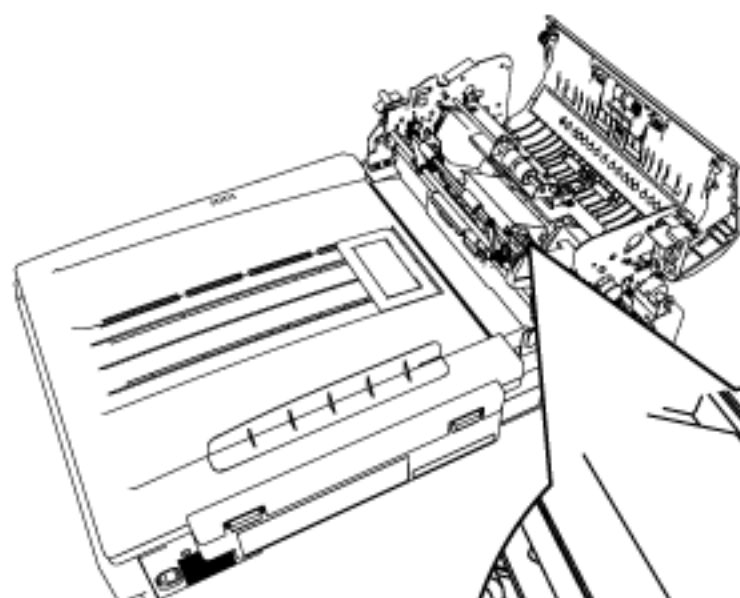


1. Remove the 2 screws on the Lamp Drive Shield Plate (through the holes) and 2 connectors on the Lamp Drive (B) Board.
2. Release the claspers from the Lamp Drive Shield Plate and remove the plate.





Holes
Lamp Drive Shield Plate
Screws



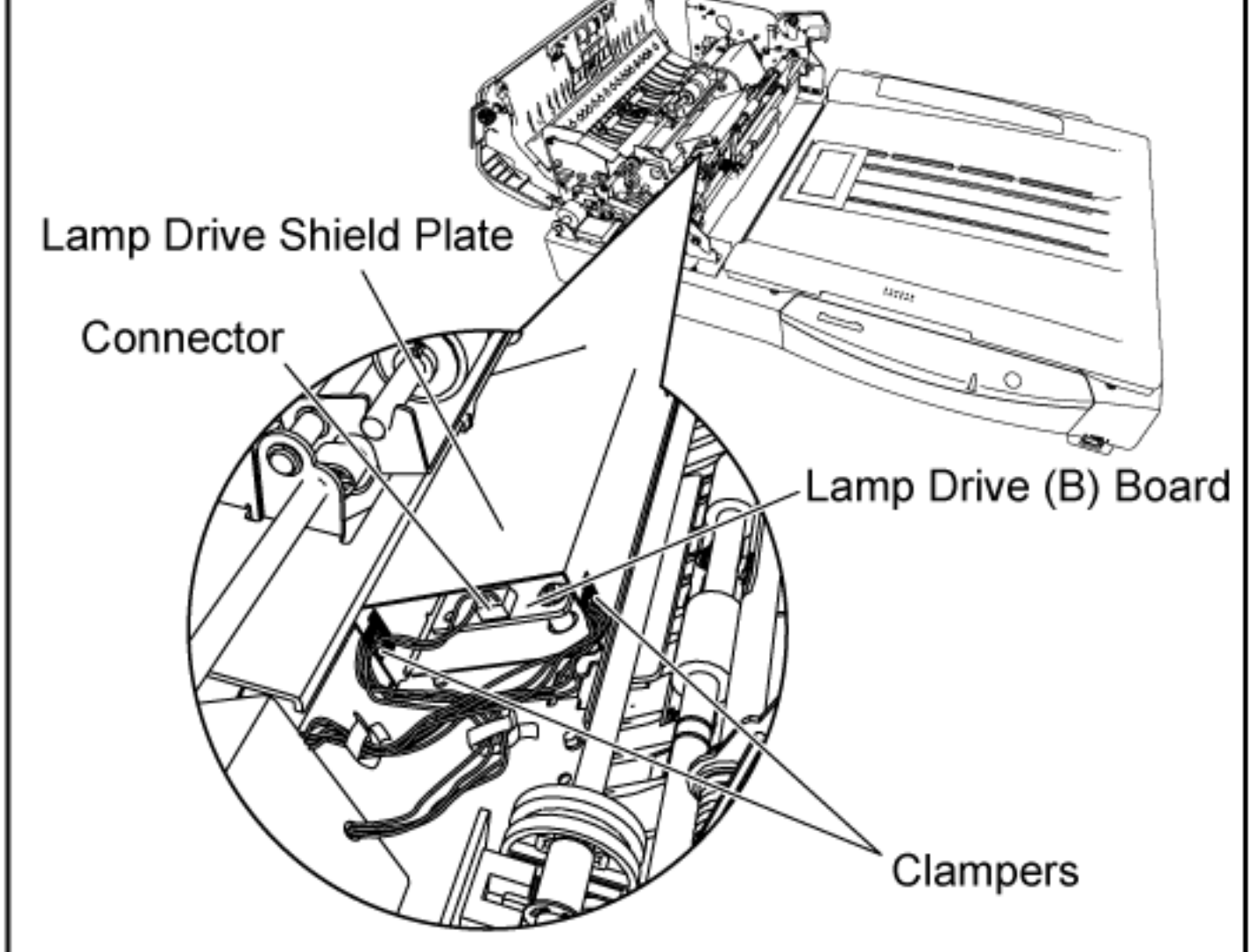
Lamp Drive (B) Board

Lamp Drive Shield Plate
Connector

Clampers

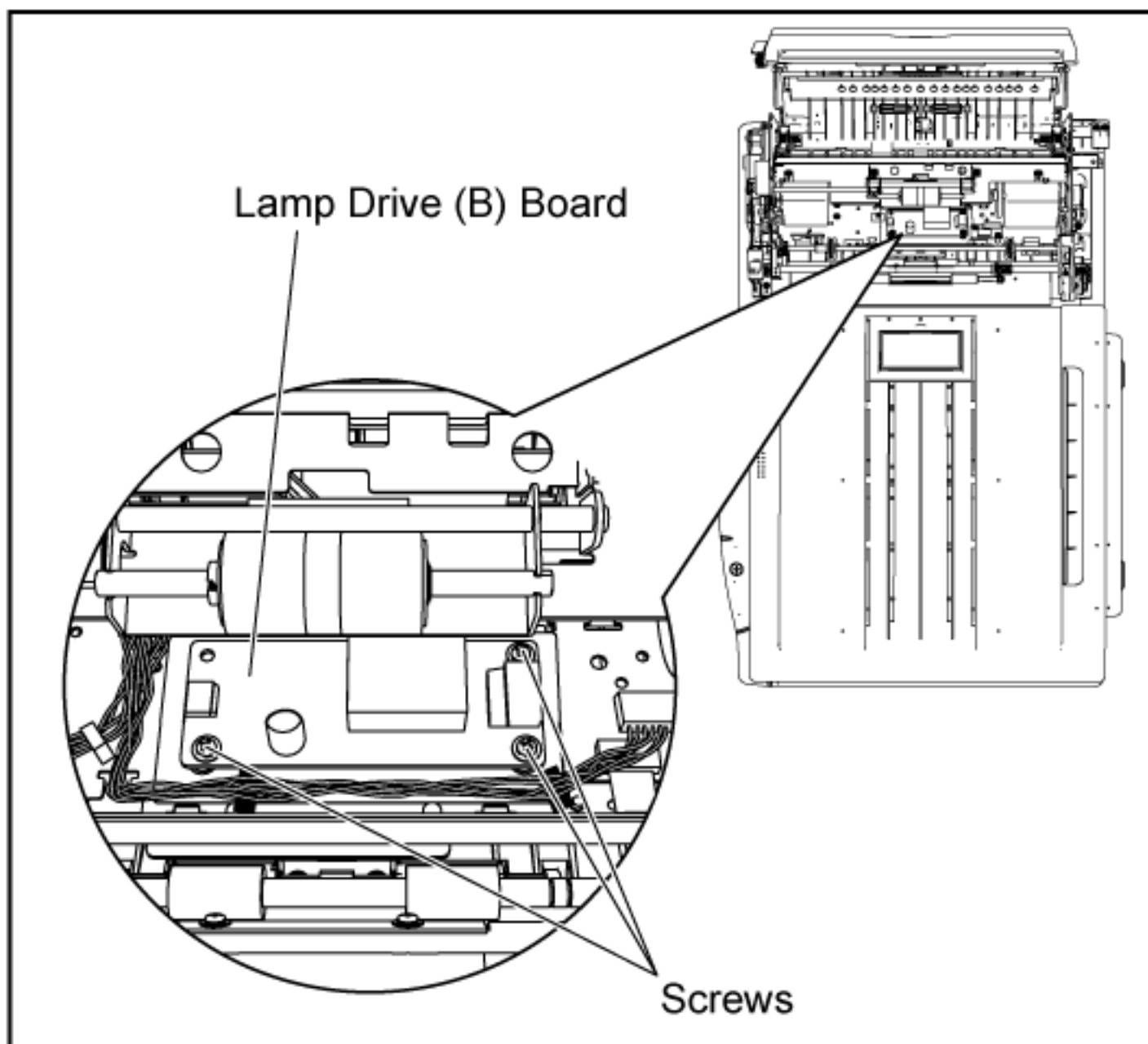
(Top Back View)





(Top Front View)

1. Remove the 3 screws on the Lamp Drive (B) Board.



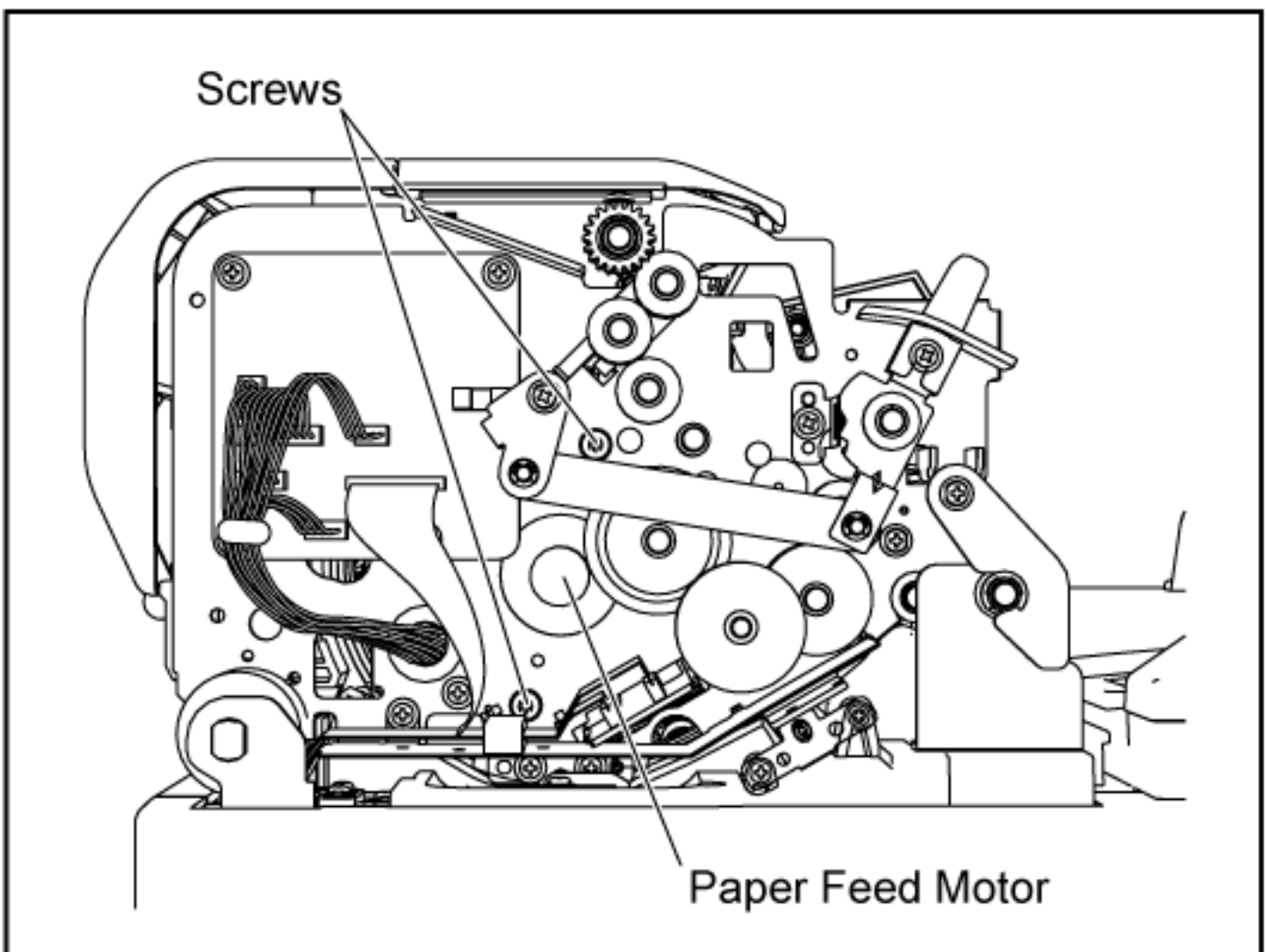
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.36 Paper Feed Motor

[TOP](#) [PREVIOUS](#) [NEXT](#)

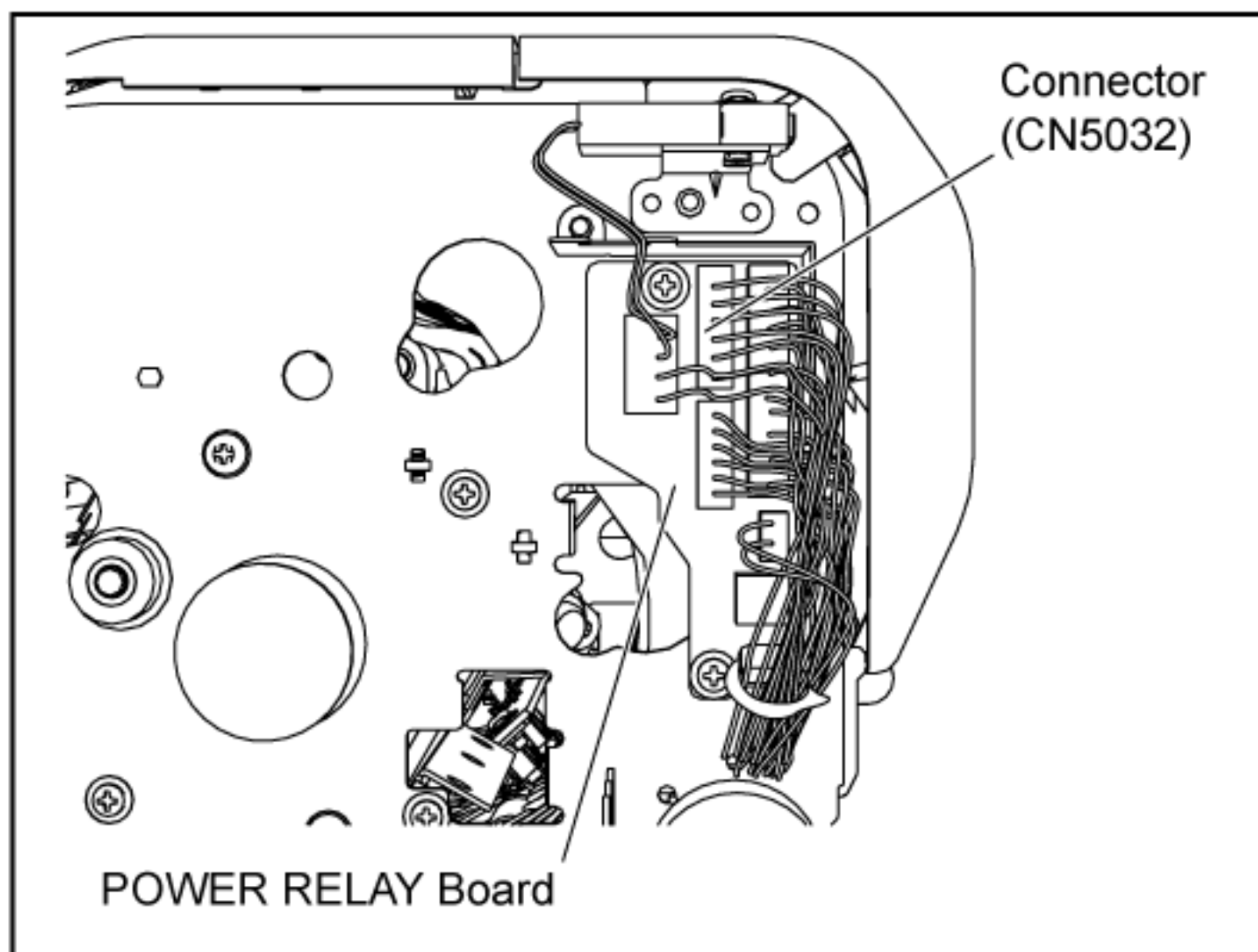
1. Remove the Shaft. (See 8.3.35 - (1) to (6).)
2. Remove the HOPPER HOME DETECTOR Board.
(See 8.3.27.)
3. Remove the 2 screws.

(Front View)



1. Remove the 1 connector (CN5032) on the POWER RELAY Board to pull out the motor from the scanner.

(Back View)



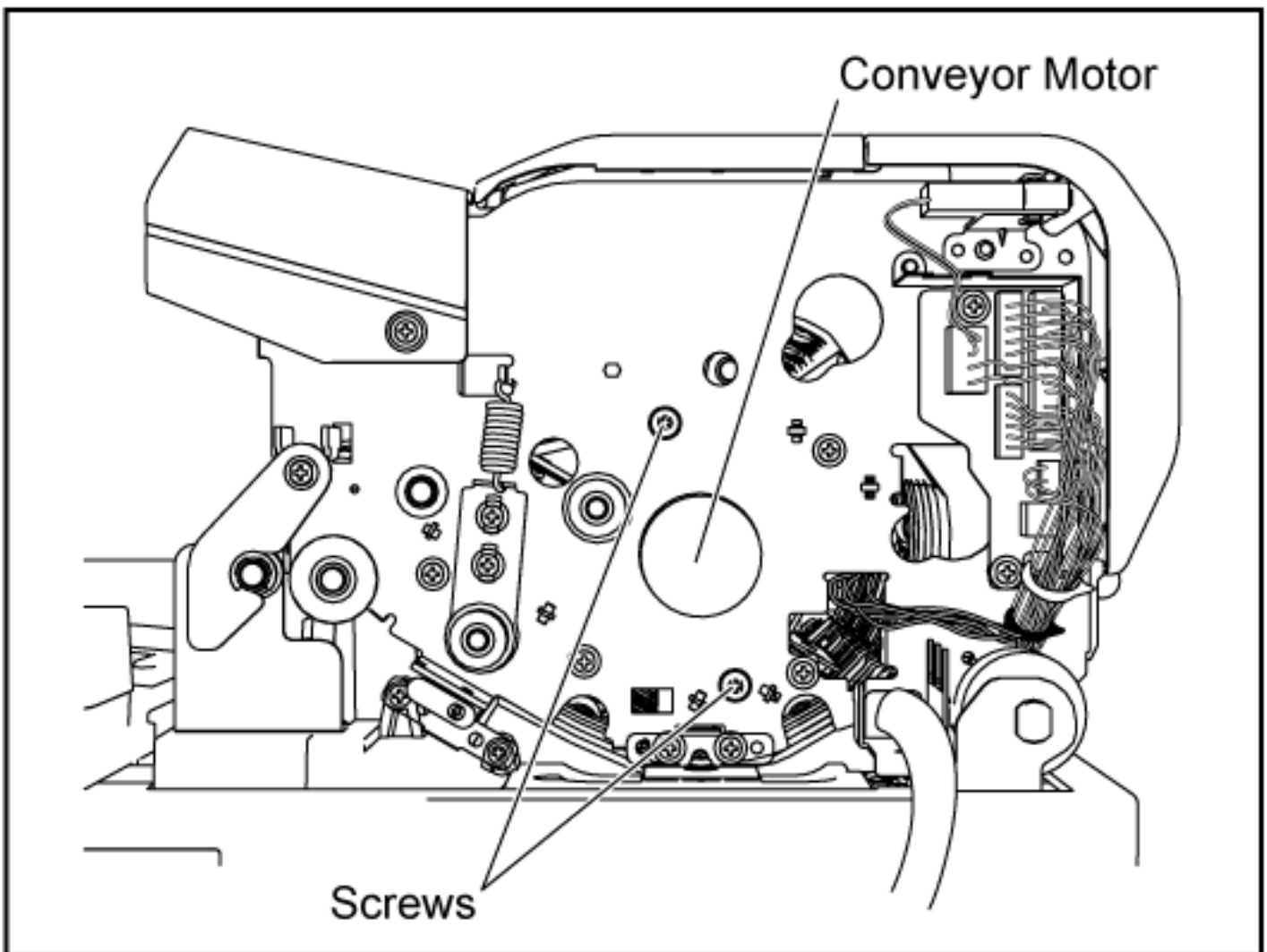
[TOP](#) [PREVIOUS](#) [NEXT](#)

8.3.37 Conveyor Motor

[TOP](#) [PREVIOUS](#) [NEXT](#)

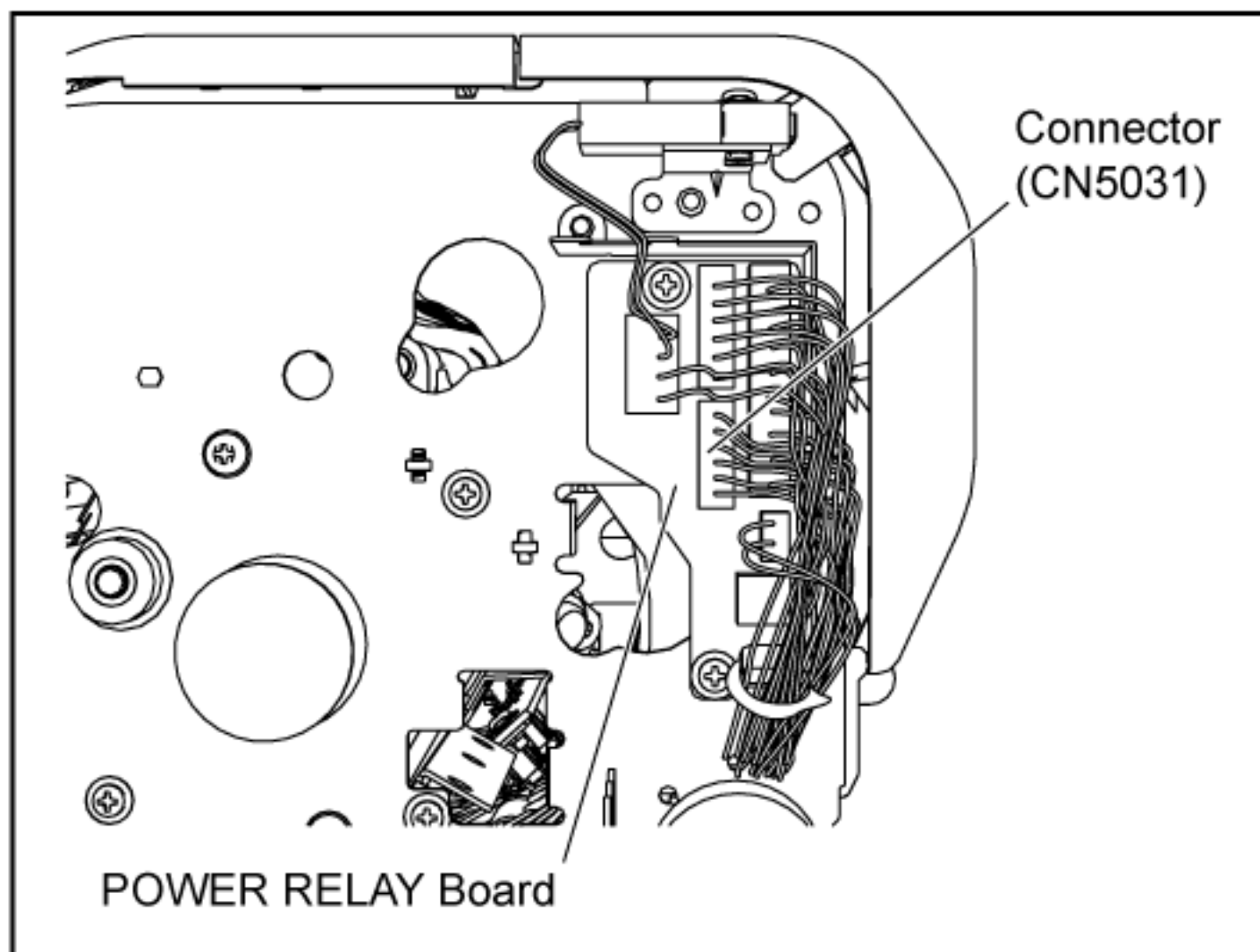
1. Remove the Shaft. (See 8.3.35 - (1) to (6).)
2. Remove the HOPPER RELAY Board. (See 8.3.29.)
3. Remove the Exit Door Switch. (See 8.3.33.)
4. Remove the 2 screws.

(Back View)



1. Remove the 1 connector (CN5031) on the POWER RELAY Board to pull out the motor from the scanner.

(Back View)



[TOP](#) [PREVIOUS](#) [NEXT](#)

9 SERVICE UTILITY& SELF TEST

[TOP](#) [PREVIOUS](#) [NEXT](#)

[9.1 Main menu indication for Service Utility](#)

[9.2 Function item list of Service Utility](#)

[9.3 Operation](#)

[9.3.1 Scanner Status](#)

[9.3.2 Error Code](#)

[9.3.3 Scanner information](#)

[9.3.4 Scanner Counter](#)

[9.3.5 Scanner Condition](#)

[9.3.6 Test](#)

[9.3.7 Adjust](#)

[9.3.8 Other \(Serial NO., Save Information\)](#)

[9.4 Scanner Self-test](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.1 Main menu indication for Service Utility

[TOP](#) [PREVIOUS](#) [NEXT](#)

This section describes the functions of the service utility software, such as adjustments, diagnosis, configuration, and maintenance.

This utility software also includes a user utility function.

Executing Service Utility.exe (without installing the software to the PC except for ASPI Manager) will allow you to operate all the functions found in this service utility software.

Note:

- This utility software is not included with the scanner.

Please call service or technical support to obtain the utility software.

- This software should be used only by an authorized service technician.

Improper use of this software may cause damage to the scanner.



[TOP](#) [PREVIOUS](#) [NEXT](#)

9.2 Function item list of Service Utility

[TOP](#) [PREVIOUS](#) [NEXT](#)

Service Utility item list is as follows.

Note:

When two or more scanners are connected to PC, execute [Select Scanner](#) to define the scanner before evaluating.

The procedure is as follows.

1. Click [Select Scanner](#) on the Main Menu.
2. Select the product number and interface of the scanner to evaluate.

Item		Purpose	Remarks
Scanner Status		To indicate scanner status (Ready or Error or Warning)	(2)
Scanner information		To indicate scanner information about Model, firmware version, Gate Array version, board revision, additional memory size (status), and interface condition	(2)
Scanner Counter	Update All Counter	To update the values of System Counter, Flatbed Counter, Cleaning roller Counter, and Replacing roller Counter	(1), (6)
	Clear Counter for cleaning roller	To clear Counter for cleaning roller to zero after cleaning roller	(1), (6)
	Clear Counter for replacing roller	To clear Counter for replacing roller to zero after replacing roller	(1), (6)
Scanner Condition	Sleep Mode	To set this mode to be enabled or disabled, and to set waiting time before entering to the sleep mode	(1)
	Clean Imprinter *1	To clean an ink jet head of imprinter.	(1), (6)
	Paper Mode / Buzzer Setting	To set scanning size (A4 or Letter) when the Document Guide is in A4 position, and to set Buzzer ON/OFF condition.	(1)
	Compatible Mode	To make this scanner operate as another scanner with this mode	(1), (3)
	User Shading	To execute shading correction at the user side, or to restore the shading data to the default (Factory-setting).	(4)
	Warning Setting	To set warning timing to clean roller and to replace roller	(3)
	Set Default	To set sleep mode setting , warning timing to clean and to replace roller to the default	(3)

<u>Test</u>	LED	To light LED on the front panel with colors changing periodically (Green→Orange→Red→Green→Orange.....)	(5)
	Key / Sensor	To do Key or Sensor ON/OFF test.	(5)
	Sensor Sensitive Level	To check sensitive level of each sensor (Waiting, Starting, Skew (L), Skew (R), Ending)	(5)
	Feed Motor	To check Paper Feed Motor s Rotating	(5)
	Conveyor Motor	To check Conveyor Motor s Rotating	(5)
	Hopper Drive	To check the hopper s Up/Down Mechanism	(5)
	Feed	To check paper feed mechanism.	(5)
	Sleep Mode	To check whether sleep mode function works properly	(5)
	CIS Level	To check maximum peak level after setting gain	(5)
	Double Feed	To check the Double Feed Detector(R) s level (Response level) after setting the ultrasonic sending level and frequency of the Double Feed Detector(G)	(5)
	Memory	To execute memory R/W test.	(5)
<u>Adjust</u>	Shading	To execute shading correction	(4)
	All Position	To adjust scanning length, vertical and horizontal positions for front and back sides, flatbed automatically	(4)
	Individual Position	<ol style="list-style-type: none"> 1. To execute automatic length, vertical or horizontal position adjustment for front and back sides, flatbed individually 2. To adjust scanning length, vertical and horizontal positions for front and back sides flatbed manually. 	(4)
	Double Feed	To correct the Double Feed detector s ultrasonic sending level and frequency automatically or manually.	(4)
<u>Other (Serial NO., Save Information)</u>	Serial No.	To change serial No. for the scanner, connected to PC.	(3)
	Save Information	To save scanner and PC information.	(1)

Note:

*1: This item is available only in case installing Imprinter (Option) to scanner KV-S7065C Series.

Remarks

(1) Parameter setting by user

(2) Status indication

(3) Parameter setting by service person

(4) Adjustment

(5) Diag.

(6) Maintenance

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3 Operation

[TOP](#) [PREVIOUS](#) [NEXT](#)

This section describes each operation (or status indication), according to the function item list shown in Sec.9.2.

[9.3.1 Scanner Status](#)

[9.3.2 Error Code](#)

[9.3.3 Scanner information](#)

[9.3.4 Scanner Counter](#)

[9.3.5 Scanner Condition](#)

[9.3.6 Test](#)

[9.3.7 Adjust](#)

[9.3.8 Other \(Serial NO., Save Information\)](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3.1 Scanner Status

[TOP](#) [PREVIOUS](#) [NEXT](#)

This function indicates scanner status, updating it every few seconds.

The status messages and its contents are as follows.

Classified Code	Status Message	Contents
-	Scanner has no error.	No error
U11, U12, U14, U16	Jam occurred! Please open the door and remove the paper.	U11: Paper feed jam U12: Conveyor jam 1 (around Conveyor) U14: Conveyor jam 2 (around Conveyor) U16: Exit jam (around Exit Roller)
U18	Paper exists in Scanner yet. Please open the door and remove the paper.	Document remains in scanner, or dust is attached around a sensor.
U20	Skew error occurred!	Skew error
U23	Double Feed occurred! Please open the door and remove the paper.	Double feed error
U30	Scanner Door is open! Please close the door.	Door is open.
Fxx	System error occurred! Please consult with a service representative.	Service-person call level error occurred.
-	No Paper! Please set the paper.	No paper error
-	*** Warning *** The rollers need to be cleaned. Please clean the rollers. Please select Clear Counter button after cleaning rollers.	Warning for cleaning rollers.
-	*** Warning *** The rollers need to be replaced. Please replace the rollers. Please select Clear Counter button after replacing the rollers.	Warning for replacing rollers.
-	*** Warning *** Insufficient front light error occurred. The lamp and/or scanning sensor need to be replaced.	1. The lamp have reached its life expectancy. 2. Lamp drive circuit for the front does not work properly.
-	*** Warning *** Insufficient back light error occurred. The lamp and/or scanning sensor need to be replaced.	1. The lamp have reached its life expectancy. 2. Lamp drive circuit for the front does not work properly.

-	<p>*** Warning ***</p> <p>The front reference plate may need to be cleaned.</p> <p>Please clean the front reference plate.</p>	The surface of the plate is dirty.
-	<p>*** Warning ***</p> <p>The back reference plate may need to be cleaned.</p> <p>Please clean the back reference plate.</p>	The surface of the plate is dirty.
-	Scanner is not connected!	Scanner is not connected to PC properly.

Fig.9.3.1 Scanner Status

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3.2 Error Code

[TOP](#) [PREVIOUS](#) [NEXT](#)

Classified and Error codes are as follows.

And troubleshooting for this error message and codes is shown is Sec.10.2.

	Contents		Contents		Contents
U1-	Document	H1-		F1-	
U2-	Document	H2-		F2-	Hardware
U3-	Door	H3-		F3-	
U4-		H4-		F4-	
U5-		H5-		F5-	Sensor
U6-		H6-		F6-	Scanning
U7-		H7-		F7-	
U8-		H8-		F8-	
U9-		H9-		F9-	

Fig. 9.3.2 Classified Code Outline

ST1	Error contents
0x	Communication error
1x	Paper jam error
2x	Door open error
3x	Mechanical function error
4x	Paper sensor error
5x	Scanning error
6x	-
7x	-
8x	Hardware error
9x	Hardware error
Ax	-
Bx	-
Cx	-
Dx	-
Ex	-
Fx	-

Fig. 9.3.3 Error Code Outline

Classified Code	Error Code				Contents
	ST1	ST2	ST3	ST4	
-	00	00	00	00	No error
-	0A	00	00	00	Stop by clicking STOP
-	0B	00	00	00	Stop by ADF stop-command
U11	11	00	00	00	Paper feed jam
U12	12	00	00	00	Conveyor jam1 (around Conveyor)
U14	14	00	00	00	Conveyor jam2 (around Conveyor)
U16	16	00	00	00	Exit jam1 (around Exit Roller)
U18	18	×	00	00	Document remains in scanner (ST2: Sensor Information) *1
U20	19	00	00	00	Skew error
U23	1C	00	×	00	Double feed error (ST3:0 Feed interval /:3 Ultrasonic)
U30	20	00	00	00	Door open
F17	87	×	00	00	GA-IMG SD-RAM error (ST2:0 Access error /:1 SD-RAM error)
F18	88	00	00	00	GA-IMG Extension SD-RAM error
F31	95	00	00	00	Analog IC error
F32	96	00	00	00	SCSI IC error
F33	97	00	00	00	USB IC error
F34	98	00	00	00	EEPROM error
F36	9A	×	00	00	Front GA-SEN SD-RAM error (ST2:0 Access error /:1 SD-RAM error)
F37	9B	01	×	×	Over run error (ST3: Front Information, ST4: Back Information)
F38	9C	×	00	00	Back GA-SEN SD-RAM error (ST2:0 Access error /:1 SD-RAM error)
F40	30	00	00	00	Hopper error
F41	31	00	00	00	Carriage error
F50	40	00	00	00	Waiting Sensor adjustment error
F51	41	00	00	00	Starting Sensor adjustment error
F52	42	00	00	00	Skew (R) Sensor adjustment error
F53	43	00	00	00	Skew (L) Sensor adjustment error
F55	45	00	00	00	Ending Sensor adjustment error
F60	50	00	00	00	Front side gain adjustment error
F61	51	00	00	00	Front side black level adjustment error
F62	52	00	00	00	Back side gain adjustment error
F63	53	00	00	00	Back side black level adjustment error
F80	60	00	00	00	Double Feed Detector adjustment error

Fig. 9.3.4 Error Code

Note: *1 ST2

Bit	Sensor Name
7	-
6	Waiting Sensor
5	Starting Sensor
4	-
3	Ending Sensor
2	-
1	Skew (L) Sensor
0	Skew (R) Sensor

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3.3 Scanner information

[TOP](#) [PREVIOUS](#) [NEXT](#)

This function provides various types of scanner information to user or service-person. Main contents are as follows.

- (1) Model
- (2) Firmware Version
- (3) Board and Gate Array (LSI) version
- (4) Total memory size
- (5) Interface information
- *1 (6) Imprinter condition
- (7) Compatible mode

Note:*1

This item is indicated only in case Imprinter (Option) is installed.

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3.4 Scanner Counter

[TOP](#) [PREVIOUS](#) [NEXT](#)

Item	Operation	Default	Remarks
Update All Counter	<ol style="list-style-type: none">1. Click Update All Counter to update counter s values.2. Confirm the values of the System , *1 Flatbed , After Clean Roller , and After Replace Roller are updatedon the main menu (Service Utility).	-	
Clear Counter for cleaning roller	<ol style="list-style-type: none">1. Click Clear Counter to clear the counter for cleaning roller.2. Confirm the counter value is zero on the main menu (Service Utility).	-	After cleaning or replacing rollers (Paper Feed, Separation, and Retard Rollers), execute this item.
Clear Counter for replacing roller	<ol style="list-style-type: none">1. Click Clear Counter to clear the counter for replacing roller.2. Confirm the counter value is zero on the main menu (Service Utility).	-	After replacing rollers (Paper Feed, Separation, and Retard Rollers), execute this item.

Note: *1

[Flatbed Counter s value increases by 10 counts.](#)

[\(Example on the flatbed scanning\)](#)

1. [When executing 8 page s scanning in the period of turning ON and OFF the scanner](#)
→ [Increment for Flatbed Counter: 0](#)
2. [When executing 18 page s scanning in the period of turning ON and OFF the scanner](#)
→ [Increment for Flatbed Counter: 10](#)
3. [When executing 38 page s scanning in the period of turning ON and OFF the scanner](#)
→ [Increment for Flatbed Counter: 30](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.3.5 Scanner Condition


[TOP](#) [PREVIOUS](#) [NEXT](#)

Item	Operation	Default	Remarks
Sleep Mode	<ol style="list-style-type: none"> 1. Click Sleep Mode on the main menu (Service Utility). 2. Set Sleep Mode to enable or disable by checking check-box. 3. Set Waiting time (minutes) to change sleep mode. 4. Click OK to renew the setting. 	Enable 15 minutes	
Clean Imprinter	<ol style="list-style-type: none"> 1. Click Clean Imprinter on the main menu to clean an ink jet head to print. 	-	This item is available only in case of installing Imprinter (Option) to scanner.
Paper Mode / Buzzer Setting	<ol style="list-style-type: none"> 1. Click Paper Mode / Buzzer Setting on the main menu. 2. Set Paper Mode (A4 or Letter) and/or Buzzer Setting (ON or OFF) on Paper Mode / Buzzer Setting dialog box. 3. Click OK to renew the setting. 		
Compatible Mode	<ol style="list-style-type: none"> 1. Click Compatible Mode on the main menu. 2. Set a model number to operate the scanner as the emulation mode on Compatible Mode dialog box. 3. Click OK to renew the setting. 		
User Shading	<ol style="list-style-type: none"> 1. Click User Shading on the main menu. 2. Push Start Shading or Restore Default on User Shading dialog box. <p>Note:</p> <ol style="list-style-type: none"> A. When selecting Restore Default , the factory-setting data will be overwritten in stead of the current shading data. B. The following procedures 3 or more are available only for selecting Start Shading <ol style="list-style-type: none"> 3. Clean the conveyor, rollers, ADF glasses according to the message on the display. And click OK . 4. Reverse Reference Plates to white according to the message on the display. And click OK . 5. Set the accessory Shading Paper or Shading Paper (Part No.: See 14.7.) on the Hopper 	-	<ol style="list-style-type: none"> 1. Before executing the shading function, be sure to clean ADF Glasses, rollers, and conveyors related to convey documents. 2. Do not stop the shading execution on its way and do not open any doors.

	<p>Tray in the landscape orientation. And click OK .</p> <ol style="list-style-type: none"> Scan the Shading Paper. Reverse the Reference Plates to black according to the message on the display. And click OK . Click OK to get back to the main menu. 		
Warning Setting	<ol style="list-style-type: none"> Click Warning Setting on the main menu. Change the parameter on Warning Setting dialog box. Click OK to renew the setting. 	Clean: 20000 Replace: 300000	
Set Default	<ol style="list-style-type: none"> Click Set Default on the main menu. Click Set Default on Set Default dialog box to set Sleep Mode setting , Clean Roller Timing , and ReplaceRoller Timing to be in default. Click Close to get back the main menu. 	-	

9.3.6 Test

[TOP](#) [PREVIOUS](#) [NEXT](#)

Item	Operation	Default	Remarks
LED	<div>1. Click LED on the main menu.</div> <div>2. Click START on LED dialog box to start LED Test continuously until clicking STOP .</div> <div>3. Click Close to get back the main menu.</div>	-	Changing periodically (Green→Orange→Red→Green.....)
Key / Sensor	<div>1. Click Key / Sensor on the main menu.</div> <div>2. Check key and sensor status on the Key / Sensor dialog box.</div> <div></div> <div>3. Click Close to get back to the main menu.</div>	-	
Sensor Sensitive Level	<div>1. Click Sensor Sensitive Level on the main menu.</div> <div>2. Click each sensor sensitive level (Offset, Slice) on Sensor Sensitive Level dialog box.</div> <div>3. Click Close to get back to the main menu.</div>	-	<div><div>Good result</div><div>Offset: less than 255</div><div>Slice: 7</div></div>
Feed Motor	<div>1. Click Feed Motor on the main menu.</div> <div>2. Click START on Feed Motor dialog box to start to rotate Paper Feed Motor continuously until clicking STOP .</div> <div>3. Click Close to get back to the main menu.</div>	-	

Conveyor Motor	<ol style="list-style-type: none"> 1. Click Conveyor Motor on the main menu. 2. Click START on Conveyor Motor dialog box to start to rotate Conveyor Motor continuously until clicking STOP. 3. Click Close to get back to the main menu. 	-	
Feed	<ol style="list-style-type: none"> 1. Set documents on the Hopper Tray. 2. Click Feed on the main menu. <div> </div> <ol style="list-style-type: none"> 3. Set Test Mode and Test Condition depending on each scanning condition. Note: Operation Set Imprinter is available only when the optional Imprinter is installed. 4. Click START on Feed dialog box to start feeding documents. Note: When selecting Flatbed on the Test Mode, check the CIS Carriage s sliding from one end to the other repeatedly. 5. Click STOP on Feed dialog box to stop the test. 6. Click Close to get back to the main menu. 	-	
Sleep Mode	<ol style="list-style-type: none"> 1. Click Sleep Mode on the main menu. 2. Click START on Sleep Mode dialog box to enter into the sleep mode. 3. Click STOP to get out of the sleep mode. 4. Click Close to get back to the main menu. 	-	

CIS Level	<div><div><div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div><div><div><div></div><div></div><div></div><div></div><div></div><div></div></div></div></div></div><div><div><div></div><div></div><div></div><div></div></div></div></div></div></div></div></div></div>
-----------	---

9.3.7 Adjust

[TOP](#) [PREVIOUS](#) [NEXT](#)

Item	Operation	Default	Remarks
Shading	<ol style="list-style-type: none"> 1. Click Shading on the main menu to execute shading correction. 2. Confirm the message The data of User Shading will be also overwritten. on the display. And if the message is acceptable, click OK. 3. Clean the conveyor, rollers, ADF glasses according the message on the display. And click OK. 4. Reverse Reference Plates to white according to the message on the display. And click OK. 5. Set Shading Paper (Part No.: See 14.7.) on the Hopper Tray in the landscape orientation. And click OK. 6. Scan the Shading Paper. 7. Reverse the Reference Plates to black according to the message on the display. And click OK. 8. Click OK to get back to the main menu. 	-	Do not stop the shading execution on its way and do not open any doors.
All Position	<ol style="list-style-type: none"> 1. Set 2pcs of test chart A (Part No.: See 14.7.) on the Hopper Tray in the portrait orientation and 1pcs of test chart A on the Flatbed. 2. Click All Position on the main menu to execute scanning position & length adjustment. 3. Check the Result. 4. Click OK to get back to the main menu. 	-	Set 2 pcs of test chart A in order. 1st page: Front side 2nd page: Back side
Individual Position	<ol style="list-style-type: none"> 1. Adjust Automatically <ol style="list-style-type: none"> A. Set test chart A (Part No.: See 14.7.) on the Hopper Tray in the portrait orientation or Flatbed. B. Click Individual Position on the main menu. C. Click one of 8 automatic adjustment menu on Individual Position dialog box to execute adjustment. D. Check the result. E. Click OK to finish this adjustment. F. Click OK to get back to the main menu. 2. Adjust Manually <ol style="list-style-type: none"> A. Click Individual Position on the main menu. B. Change the parameter (mm, %) on the Individual Position dialog box, as required. (Refer to Remarks.) 	-	<ol style="list-style-type: none"> 1. Adjust Automatically 8 automatic adjustment <ol style="list-style-type: none"> A. Adjust Length B. Adjust Front V. Position C. Adjust Front H. Position D. Adjust Back V. Position E. Adjust Back H. Position F. Adjust FB Length G. Adjust FB V. Position H. Adjust FB H. Position 2. Adjust Manually (Vertical Position) +: Increasing the number makes the document scanning position shifted downward (Horizontal Position) +: Increasing the number makes the document scanning position shifted to

	<p>C. Click OK to renew the setting, and to get back to the main menu.</p>		<p>the right.</p> <p>(Length) +: Increasing a number makes the scanning document length longer.</p> <p>Note: If the appropriate scanning position can not be determined by any of the manual adjustments, check CIS attachment to the scanner.</p>
Double Feed	<ol style="list-style-type: none"> 1. Adjust Automatically <ol style="list-style-type: none"> A. Set Shading Paper (Part No.: See 14.7.) on the Hopper Tray in the portrait orientation. B. Click Double Feed for Adjust item on the main menu. C. Click Adjust Automatically on Double Feed Sensor dialog box to adjust the double-feed sensitivity. D. Check the result. E. Click OK on finish this adjustment. F. Click OK on the Double Feed Sensor dialog box to get back to the main menu. 2. Adjust Manually <ol style="list-style-type: none"> A. Click Double Feed for Adjust item on the main menu. B. Change parameters (Send Level, Frequency) as required on the Double Feed Sensor dialog box. C. Click OK on the Double Feed Sensor dialog box to get back to the main menu. 	-	

9.3.8 Other (Serial NO., Save Information)

[TOP](#) [PREVIOUS](#) [NEXT](#)

(1) Serial NO.

After clicking [Serial NO](#) on the main menu, click Set on [Serial NE](#) dialog box to store a new serial number for a new CONTROL Board replaced. (This setting is only available for the new CONTROL Board.)

(2) Save Information

This function saves scanner and PC information (Counter values, Adjustment values, CPU, OS, and others) as log file, clicking [Save file](#) on the main menu.

[TOP](#) [PREVIOUS](#) [NEXT](#)

9.4 Scanner Self-test







[TOP](#) [PREVIOUS](#) [NEXT](#)






Without connecting scanner to PC, the following contents can be done as the scanner self-test.

The following test is mainly available for mechanical test after replacing or reassembling rollers (Drive roller, Sensor roller) and other mechanical parts related to feed documents.





Note:*7





Regarding each LED s (Front, Back) position in the following figure, see Sec.3.

Test Item	Operation	LED status		Remarks
		*7 Front	*7 Back	
			 : OFF  : ON	
1. Paper Feed Motor s rotating	1. While pushing STOP/START Button on the front panel, turn on the scanner.	-	-	
	2. Release the button at the timing when the front LED status changes from blinking to ON.	Orange (Blinking) →Green	OFF→Blinking	
	3. Push the STOP/START Button once to enter into the test selection mode.	Green	Blinking→Count	
	4. Push the STOP/START Button once at the timing when the back panel LED s status is 1 (h) *1 . Note: This operation allows the scanner to select the Feed Motor s rotating test.	Green	*1    	



	5. Push the STOP/START Button once to start the test.	Green	
	6. Push the STOP/START Button once to stop the test.	Green	
	7. Turn off the scanner to finish the test.	-	-
2. Conveyor Motor s rotating	1. While pushing STOP/START Button on the front panel, turn on the scanner.	-	-
	2. Release the button at the timing when the front LED status changes from blinking to ON.	Orange (Blinking) → Green	OFF → Blinking
	3. Push the STOP/START Button once to enter into the test selection mode.	Green	Blinking → Count
	4. Push the STOP/START Button once at the timing when the back panel LED s status is 2 (h) *2 . Note: This operation allows the scanner to select the Conveyor Motor s rotating test.	Green	*2 
	5. Push the STOP/START Button once to start the test.	Green	
	6. Push the STOP/START Button once to stop the test.	Green	
	7. Turn off the scanner to finish the test.	-	-

3. Carriage Motor s Drive	1. While pushing STOP/START Button on the front panel, turn on the scanner.	-	-	
	2. Release the button at the timing when the front LED status changes from blinking to ON.	Orange (Blinking) →Green	OFF→Blinking	
	3. Push the STOP/START Button once to enter into the test selection mode.	Green	Blinking→Count	
	4. Push the STOP/START Button once at the timing when the back panel LED s status is 3 (h) *3 . Note: This operation allows the scanner to select the Carriage Motor s Drive test.	Green	*3 ● ● ○ ○	
	5. Push the STOP/START Button once to start the test.	Green	● ● ○ ○	
	6. Push the STOP/START Button once to stop the test.	Green	● ● ○ ○	
	7. Turn off the scanner to finish the test.	-	-	
4. Hopper Drive	1. While pushing STOP/START Button on the front panel, turn on the scanner.	-	-	
	2. Release the button at the timing when the front LED status changes from blinking to ON.	Orange (Blinking) →Green	OFF→Blinking	
	3. Push the STOP/START Button once to enter into the test selection mode.	Green	Blinking→Count	

	<p>4. Push the STOP/START Button once at the timing when the back panel LED s status is 4 (h) *4 .</p> <p>Note: This operation allows the scanner to select the Hopper Drive test.</p>	Green	*4 
	<p>5. Push the STOP/START Button once to start the test.</p>	Green	
	<p>6. Push the STOP/START Button once to stop the test.</p>	Green	
	<p>7. Turn off the scanner to finish the test.</p>	-	-
5. Feed	<p>1. While pushing STOP/START Button on the front panel, turn on the scanner.</p>	-	-
	<p>2. Release the button at the timing when the front LED status changes from blinking to ON.</p>	Orange (Blinking) →Green	OFF→Blinking
	<p>3. Set documents on the Hopper Tray.</p>	Green	Blinking
	<p>4. Push the STOP/START Button once to enter into the test selection mode.</p>	Green	Blinking→Count
	<p>5. Push the STOP/START Button once at the timing when the back panel LED s status is 5 (h) *5 .</p> <p>Note: This operation allows the scanner to select the Feed test.</p>	Green	*5 

	6. Push the STOP/START Button once to start the test.	Green	
	7. Turn off the scanner to finish the test.	-	-
6. Shading	1. While pushing STOP/START Button on the front panel, turn on the scanner.	-	-
	2. Release the button at the timing when the front LED status changes from blinking to ON.	Orange (Blinking) →Green	OFF→Blinking
	3. Set a Shading Paper (Part No.: See 14.7.) on the Hopper Tray in the landscape orientation.	Green	Blinking
	4. Push the STOP/START Button once to enter into the test selection mode.	Green	Blinking→Count
	5. Push the STOP/START Button once at the timing when the back panel LED status is 6 (h) *6 . Note: This operation allows the scanner to select the Shading test.	Green	*6 
	6. Push the STOP/START Button for 5 seconds or more to enter into the shading test.	Green	
	7. After confirming the front panel LED is blinking with orange and green alternately, open the Exit Door and turn the two Reference Plates (F, B) to the white side. And close the Exit Door.	Blinking with orange and green alternately	

1. Before executing the shading function, be sure to clean ADF Glasses, rollers, and conveyors related to convey documents.
2. Do not stop the shading execution on its way. And do not open any doors except for the procedures 7 and 9 in the Operation Column of this test item.

8. Paper feeding starts to execute the shading.	Blinking with orange (during shading)	
9. After confirming the front panel LED is blinking with orange and red alternately, open the Exit Door again and turn the two Reference Plates (F, B) to the black side. And close the Exit Door.	Blinking with orange and red alternately →Blinking with orange (during shading)	
10. After confirming the front LED is green, turn off the scanner to finish the test.	Green→OFF	-

[TOP](#) [PREVIOUS](#) [NEXT](#)

10 TROUBLESHOOTING

[TOP](#) [PREVIOUS](#) [NEXT](#)

[10.1 Troubleshooting-1 \(with no error message on PC\)](#)

[10.2 Troubleshooting-2 \(According to error message on PC\)](#)

[10.2.1 Error Code](#)

[10.3 Requirement After Parts Replacement](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

10.1 Troubleshooting-1 (with no error message on PC)

[TOP](#) [PREVIOUS](#) [NEXT](#)

Phenomenon	Possible Cause	Check Point	Remarks
No Power	1. Power circuit does not work properly.	<ol style="list-style-type: none">1. Check Power Switch s ON/OFF mechanical condition.2. Check the following connection and soldering condition.<ol style="list-style-type: none">A. AC Inlet to CN801 (POWER Board)B. CN802 (POWER Board) to CN4003 (DRIVE Board)C. CN4005 (DRIVE Board) to CN5036 (POWER RELAY Board)D. CN4007 (DRIVE Board) to CN1006 (CONTROL Board)3. Check the connection between the POWER Board and FAN.4. Check whether the Fuse (F801) and Fuse (F841) is not broken.5. Check the following parts soldering condition to repair it. → Q801, IC8026. Check DC supply (24 V) on the POWER Board. → CN802-6, 7, 8th pins, CN803-1st pin7. Check the following signals on the POWER Board. → IC801-8th: (See Fig.10.1.1 .)→ IC802-1st: (See Fig.10.1.2 .)8. Check DC supply (14 V, 5 V, 3.3 V) on the DRIVE Board. → CN4007-4th pin: 14 V → CN4007-6, 7th pins: 5 V → CN4007-10, 11th pins: 3.3 V9. Replace faulty parts or boards.	
	2. Safely circuit operates, or is broken.	<ol style="list-style-type: none">1. Check whether improper connection and/or condition (for example, a signal line contacts to the plate around the POWER Board or DRIVE Board) affect this issue.2. Check the connection between CN802 (POWER Board) and CN4003 (DRIVE Board).3. Check the following parts soldering condition on the POWER Board. CN802-1st pin, IC803, IC804, IC805, Q802, Q8064. Check the following parts soldering condition on the DRIVE Board. → D4002 to D40115. Replace faulty parts or boards.	
	3. LED or its drive circuit does not work correctly.	<ol style="list-style-type: none">1. Check the following connection and soldering condition on each connector.<ol style="list-style-type: none">A. CN5023 (PANEL Board) to CN4004 (DRIVE Board)B. CN4002 (DRIVE Board) to CN1008 (CONTROL Board)2. Check the soldering condition of D5006, Q5026, Q5028 on the PANEL Board, and of Q4001, Q4002, Q4008, Q4009 on the DRIVE Board, and of IC1024, Z1067 on the CONTROL Board.3. Check the following signals<ol style="list-style-type: none">A. CN5023-2nd, CN4002-8th pins: 0 V (when green LED turns ON)B. CN5023-3rd, CN4002-9th pins: 0 V (when red LED turns ON)4. Replace faulty parts or boards.	

FAN does not rotate.	1. Electrical circuit does not work properly.	<ol style="list-style-type: none"> 1. Check the connection between the FAN and CN803 (POWER Board). 2. Check the following signals on the POWER Board. <ol style="list-style-type: none"> A. CN803-1st pin: 24 V 	
	2. Mechanical problem prevents FAN from rotating.	<ol style="list-style-type: none"> 1. Check whether obstacles that prevent the FAN from rotating exist. 2. Replace the faulty FAN. 	
Door switch does not work correctly.	Refer to Error Code U30 (See 10.2.1.).	Refer to Error Code U30 (See 10.2.1.).	
Buzzer does not sound.	Buzzer or its control circuit does not operate correctly.	<ol style="list-style-type: none"> 1. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5023 (PANEL Board) to CN4004 (DRIVE Board) B. CN4002 (DRIVE Board) to CN1008 (CONTROL Board) 2. Check the soldering condition of Q5025, Q5027, Q5029, and their surrounding circuit on the PANEL Board, and of IC1024 on the CONTROL Board. 3. Check the following signals CN5023-1st, CN1008-8th pins: 1 kHz (when the buzzer sounds) 4. Replace faulty parts or boards. 	
Scanning size is not detected properly.	1. The location between document guide slider and Size Detector is not proper to detect document size.	<ol style="list-style-type: none"> 1. Check whether the attachment of the SIZE DETECTOR Board is proper. 2. Check the tip of the slider on the bottom of the hopper interrupts the detector, according to sliding the guide, normally. 3. Reattach or replace parts. 	
	2. The Size detector or its monitor circuit does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor test in Sec.9.3.6 to check the detector condition. 2. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5010 (SIZE DETECTOR Board) to CN5013 (HOPPER RELAY Board) B. CN5014 (HOPPER RELAY Board) to CN5020 (SENSOR RELAY Board) C. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 3. Check the following parts and their surrounding circuit s soldering condition on the SIZE DETECTOR Board and CONTROL Board <ol style="list-style-type: none"> A. SIZE DETECTOR Board IC5008 to IC5012, Q5007 to Q5011 B. CONTROL Board IC1036 4. Check the following signal on the CONTROL Board (in case of A4 size) <ul style="list-style-type: none"> → CN1009-2nd pin: 3.3 V (High) → CN1009-3rd pin: 3.3 V (High) → CN1009-4th pin: 0 V (Lower) → CN1009-5th pin: 0 V (Lower) → CN1009-6th pin: 0 V (Lower) 5. Replace faulty parts or boards. 	
Document cover s open/close information cannot be recognized.	1. The location between document cover s actuator and Document Cover Detector is not proper to detect cover s closing status.	<ol style="list-style-type: none"> 1. Check whether the attachment of the DOCUMENT COVER DETECTOR Board is proper. 2. Check the actuator interrupts detector when closing the cover normally. 3. Reattach or replace parts. 	

	2. The Document Cover Detector or its monitor circuit does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor test in Sec.9.3.6 to check the detector condition. 2. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5034 (DOCUMENT COVER DETECTOR Board) to CN4017 (DRIVE Board) B. CN4002 (DRIVE Board) to CN1008 (CONTROL Board) 3. Check the following parts and their surrounding circuit's soldering condition on the DOCUMENT COVER DETECTOR Board and CONTROL Board <ol style="list-style-type: none"> A. DOCUMENT COVER DETECTOR Board → IC5018, Q5030 B. CONTROL Board → IC1035 4. Check the following signal on the CONTROL Board (in case of closing the cover.) IC1035-4th pin: 3.3 V 5. Replace faulty parts or boards. 	
ADF scanning image for front side or flatbed scanning image is not clear.	1. Optical function block on the CIS has a problem.	<ol style="list-style-type: none"> 1. Check the surface of the ADF Glass (F) is not dirty. → Clean the surface with the cleaning paper. 2. Alien substance in the CIS → Remove it. 	
	2. Pixel data from CIS (F) or image processing circuit have some problems.	<ol style="list-style-type: none"> 1. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CIS (F) to CN3003 (CARRIAGE RELAY Board) B. CN3001 (CARRIAGE RELAY Board) to CN1003 (CONTROL Board) C. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the following CIS timing signals on the CARRIAGE RELAY Board are normal. → CN3003-35th pin: 5 MHz → CN3003-33rd pin: 5 MHz 3. Check the soldering condition of the IC1010, IC1011, IC1024 and their surrounding circuit on the CONTROL Board. 4. Check the soldering condition of the IC1008, IC1009, and their surrounding circuit on the CONTROL Board. 5. Check the soldering condition of the IC2045 and its surrounding circuit on the INTERFACE Board. 6. Replace faulty parts or boards. 	
ADF scanning image for back side image is not clear.	1. Optical function block on the CIS has a problem.	<ol style="list-style-type: none"> 1. Check the surface of the ADF Glass (B) is not dirty. → Clean the surface with the cleaning paper. 2. Alien substance in the CIS → Remove it. 	
	2. Pixel data from CIS (B) or image processing circuit have some problems.	<ol style="list-style-type: none"> 1. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CIS (B) to CN3006 (CIS RELAY Board) B. CN3005 (CIS RELAY Board) to CN1002 (CONTROL Board) C. CN3004 (CIS RELAY Board) to CN1001 (CONTROL Board) D. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the following CIS timing signals are normal. → CN3006-6th pin: 5 MHz → CN3006-8th pin: 5 MHz 3. Check the soldering condition of the IC1012, IC1013, IC1024 and their surrounding circuit on the CONTROL Board. 4. Check the soldering condition of the IC1006, IC1007, and their surrounding circuit on the CONTROL Board. 5. Check the soldering condition of the IC2046 and its surrounding circuit on the INTERFACE Board. 6. Replace faulty parts or boards. 	

Scanning position is shifted.	1. When reassembling CIS or mechanical parts related to conveying documents, re-adjustment has not been done.	Execute All Position or Individual Position test in Sec.9.3.7 to adjust the scanning position.	
	2. When replacing CONTROL Board, CIS, or mechanical parts related to conveying documents, re-adjustment has not been done.		
The document skews when scanning.	1. Document quality is out of this scanner s specification.	Check the specification on this scanner. (See Sec. 2.)	
	2. Rollers are dirty.	Clean the rollers. (See 7.2.)	
	3. Rollers are not attached to the default position properly when assembling.	Assemble the rollers again.	
	4. Rollers have reached their life expectancy.	After inspecting them, replace the roller.	

Fig.10.1.1

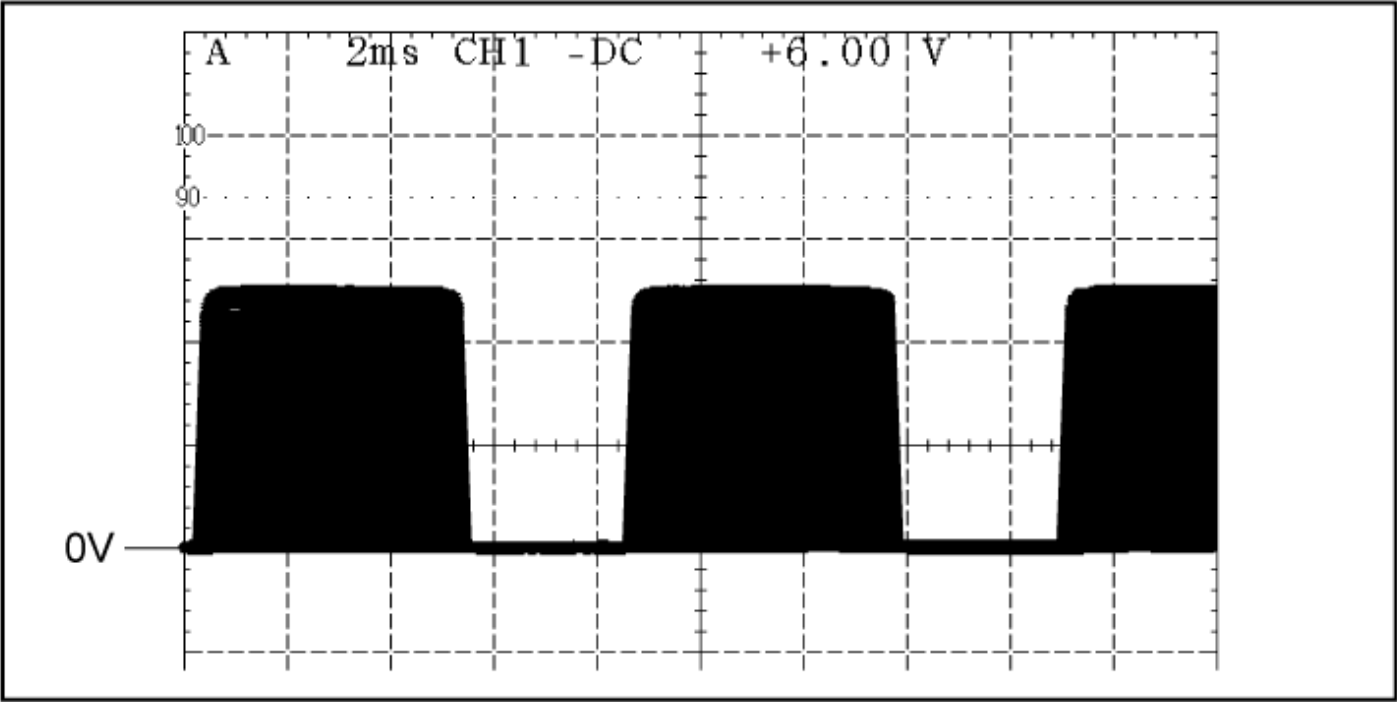
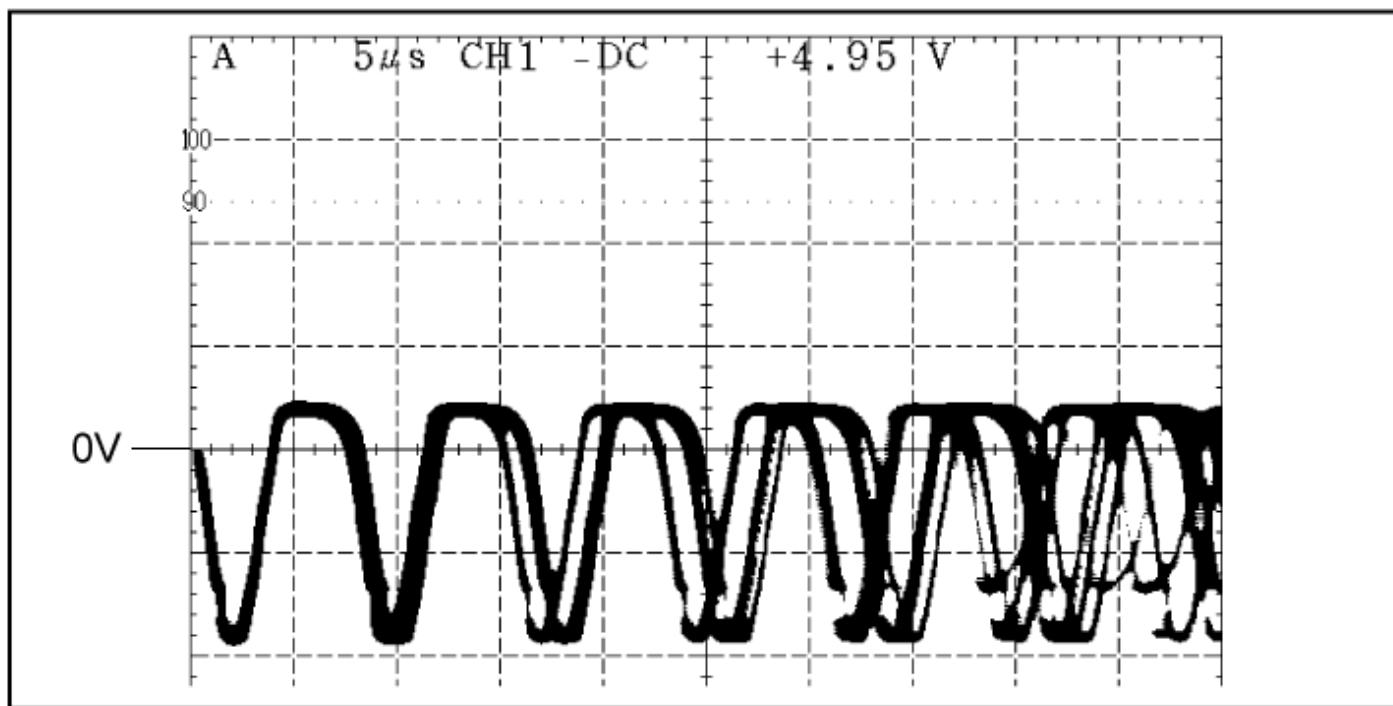


Fig.10.1.2



[TOP](#) [PREVIOUS](#) [NEXT](#)

10.2 Troubleshooting-2 (According to error message on PC)

[TOP](#) [PREVIOUS](#) [NEXT](#)

[10.2.1 Error Code](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

10.2.1 Error Code

[TOP](#) [PREVIOUS](#) [NEXT](#)

Error Code					Possible Cause	Check Point	Remarks
Classified Code	ST1	ST2	ST3	ST4			
Error Message No paper ! Please set the paper. (No paper error)	-	-	-	-	1. Documents are not set on the Hopper tray.	Set the documents on the tray.	
					2. Paper dust exist on or around the Paper sensor	Blow off the dirt with the accessory blower. (See Sec.7.2.)	
					3. Paper Sensor in not working correctly.	<ol style="list-style-type: none"> Execute Key / Sensor test in the Sec.9.3.6 to check the sensor condition. Check the sensor attachment condition. (whether the sensor attachment direction faces to paper on the Hopper. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> Paper Sensor to CN5011 (SIZE DETECTOR Board) CN5010 (SIZE DETECTOR Board) to CN5013 (HOPPER RELAY Board) CN5014 (HOPPER RELAY Board) to CN5020 (SENSOR RELAY Board) CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) Check the signal *PEXIST condition: 0 V when paper exists → Monitor points: CN5011-2nd pin, CN5010-7th pin, CN5013-4th pin, CN5014-5th pin, CN5020-5th pin, CN5022-22th pin, CN1009-1st pin Check the soldering condition of IC1034-2nd, 18th pins and repair it. Replace faulty parts or boards. 	
U11 (Paper feed jam: Paper does not reach the Waiting Sensor)	11	00	00	00	1. Paper Feed Roller Module or Retard Roller are not assembled correctly.	<ol style="list-style-type: none"> Reassemble the rollers. Check the paper feed mechanism from the Paper Feed Motor s gear to Paper Feed Roller s gear. (See 6.2 and 6.3.) 	
					2. Rollers (Paper Feed, Separation, Retard) are dirty.	<ol style="list-style-type: none"> Clean the rollers. (See Sec.7.2.) Clear counter for cleaning roller to zero with the service utility s operation in Sec.9. 	
					3. Rollers have reached their life expectancy.	<ol style="list-style-type: none"> Replace the Paper Feed, Separation, and Retard Rollers after checking each roller configuration and Scanner Counter of Service Utility software. Clear counter for replacing roller to zero with the above service utility. 	
					4. Paper dust exist on or around the Waiting Sensor.	<ol style="list-style-type: none"> Blow off the dirt with the accessory blower. (See Sec.7.2.) Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	

U11 (Paper feed jam: Paper does not reach the Waiting Sensor)	11	00	00	00	5. Waiting Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5006 (WAITING SENSOR Board) to CN5002 (OUTER CONVEYOR RELAY Board) B. CN5004 (OUTER CONVEYOR RELAY Board) to CN1014 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. STBY signal (CN5006-2nd pin, CN5004-9th pin) → 1.5 V or less (when none exists on the Waiting Sensor) B. Check the reference signal for the STBY signal on the CONTROL Board. IC1014-2nd pin: 1.5 V or less IC1016-5th pin: Approx. 1.5 V C. Check comparator output signal. → IC1016-2nd pin: 3.3 V (when no document exists) 5. Replace faulty parts or cables. 	
					6. Paper Feed Motor does not work properly.	<ol style="list-style-type: none"> 1. Check the motor mechanism condition by carrying out Feed Motor test. (See 9.3.6.) 2. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. Paper Feed Motor to CN5032 (POWER RELAY Board) B. CN5025 to CN5032 on the POWER RELAY Board 3. Check the following signals → CN5032-1, 4, 5, 7th pins See Fig.10.2.1. 4. Replace faulty cables. 5. Replace the Paper Feed Motor. 	
					7. Paper Feed Motor control circuit does not work properly.	<ol style="list-style-type: none"> 1. Check following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5025 (POWER RELAY Board) to CN4008 (DRIVE Board) B. CN4001 (DRIVE Board) to CN1007 (CONTROL Board) C. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the soldering condition of IC4002 on DRIVE Board to repair it. 3. Check the following signals on the DRIVE Board. <ol style="list-style-type: none"> A. IC4002-11th pin (CLK): See Fig.10.2.2. B. IC4002-7th pin (VREF): 2.3 V or less C. IC4002-15th pin (ENABLE): 5 V (when executing Feed Motor test) 4. Check the soldering condition of the following signals on the CONTROL Board <ol style="list-style-type: none"> A. IC1038-11th pin (CLK) B. IC1038-2, 5, 6, 9, 12th pins 5. Replace faulty parts or boards. 	
U12 (Conveyor jam 1: Paper does not reach the Starting Sensor s position.)	12	00	00	00	1. Document remains between Waiting Sensor and Starting Sensor.	Remove the document from the scanner.	
					2. Paper dust exist on or around the Starting Sensor	<ol style="list-style-type: none"> 1. Blow off the dirt with the accessory blower. (See Sec.7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	

					3. Starting Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. PHEAD signal (CN5012-3rd pin, CN5017-3rd pin, CN5022-10th pin) <ul style="list-style-type: none"> → 1.5 V or less (when none exists on the Starting Sensor) B. Check the reference signals for the PHEAD signal on the CONTROL Board. <ul style="list-style-type: none"> → IC1014-9th pin: 1.5 V or less (After initializing) → IC1016-9th pin: Approx. 1.5 V C. Check comparator output signal. <ul style="list-style-type: none"> → IC1016-14th pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards.
U12 (Conveyor jam 1: Paper does not reach the Starting Sensor s position.)	12	00	00	00	4. Mechanical problem (Drive Roller, Drive Belt, Conveyor)	<ol style="list-style-type: none"> 1. Execute Feed Motor and Conveyor Motor test in Sec.9.3.6 to check the mechanical condition. 2. Check whether the Drive Rollers (especially Drive Rollers 1, 2), the Drive belt, and the conveyor to support the Drive Rollers are put together into the scanner properly. 3. Check the surface of the Drive Rollers. <ol style="list-style-type: none"> A. Configuration: <ul style="list-style-type: none"> Is the roller shape irregular? → Replace the roller. B. Whether the roller surface is dirty <ul style="list-style-type: none"> → Clean the surface. 4. Check whether the Drive Belt tension is proper. <ul style="list-style-type: none"> → Re-adjust the belt tension.
					5. Conveyor Motor does not work properly.	<ol style="list-style-type: none"> 1. Execute Conveyor Motor test in Sec.9.3.6 to check the motor s rotating condition. 2. Check the following connection and soldering condition on the POWER RELAY Board <ol style="list-style-type: none"> A. Conveyor Motor to CN5031 (POWER RELAY Board) B. CN5031 to CN5025 on the POWER RELAY Board 3. Check the following signals <ul style="list-style-type: none"> → CN5031-1, 3, 4th, or 6th pins (when executing Conveyor Motor test): See Fig.10.2.3 . 4. Replace faulty parts or POWER RELAY Board.
					6. Conveyor Motor circuit does not work properly.	<ol style="list-style-type: none"> 1. Execute Conveyor Motor test in Sec.9.3.6 to check the motor s rotating condition. 2. Check the following connection and soldering condition. <ol style="list-style-type: none"> A. CN5025 (POWER RELAY Board) to CN4008 (DRIVE Board) B. CN4001 (DRIVE Board) to CN1007 (CONTROL Board) C. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 3. Check the soldering condition of IC4001 and its surrounding circuit on DRIVE Board to repair it. 4. Check the following signals on the DRIVE Board. <ol style="list-style-type: none"> A. IC4001-11th pin (CLK): See Fig.10.2.4 . B. IC4001-7th pin (VREF): 2.3 V or less C. IC4001- 15th pin (ENABLE): 5 V (when executing Conveyor Motor test) 5. Check the soldering condition of IC1038 on CONTROL Board to repair it. <ol style="list-style-type: none"> A. 11th pin (CLK) B. 2, 5, 6, 9, and 12th pins

					6. Check the soldering condition of IC2045-224th pin on the INTERFACE Board to repair it. 7. Replace faulty parts or boards.	
U14 (Conveyor jam 2: Paper does not reach the Ending Sensor s position.)	14	00	00	00	1. Document remains between Starting Sensor and Ending Sensor.	Remove the document from the scanner.
					2. Paper dust exist on or around the Ending Sensor.	1. Blow off the dirt with the accessory blower. (See Sec.7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition.
					3. Ending Sensor does not work correctly.	1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. A. CN5015 (ENDING SENSOR Board) to CN5016 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. A. PEXIT signal (CN5015-2nd pin, CN5016-2nd pin, CN5022-7th pin, CN1009-16th pin) → 1.5 V or less (when none exists on the Ending Sensor) B. Check the reference signals for the PEXIT signal on the CONTROL Board. → IC1015-6th pin: 1.5 V or less (After initializing) → IC1017-7th pin: Approx. 1.5 V C. Check comparator output signal. → IC1017-1st pin: 3.3 V (when no paper exists) 5. Replace faulty parts or board.
					4. Mechanical problem (Drive Roller, Drive Belt, Conveyor)	1. Execute Conveyor Motor test in Sec.9.3.6 to check the mechanical condition. 2. Check whether the Drive Rollers (3, 4), the Drive belt, and the conveyor to support the Drive Rollers are put together into the scanner properly. 3. Check the surface of the Drive Rollers (3, 4). A. Configuration: Is the roller shape irregular? → Replace the roller. B. Whether the roller surface is dirty → Clean the surface. 4. Check whether the Drive Belt tension is proper. → Re-adjust the belt tension (See 8.3.18.).
U16 (Exit jam: around Exit Roller)	16	00	00	00	1. Document remains forward Ending Sensor.	Remove the document from the scanner.
					2. Paper dust exist on or around the Ending Sensor.	1. Blow off the dirt with the accessory blower. (See Sec.7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition.

					3. Mechanical problem (Exit Roller, Drive Belt, Conveyor)	<ol style="list-style-type: none"> 1. Execute Conveyor Motor test in Sec.9.3.6 to check the mechanical condition. 2. Check whether the Drive Rollers (3, 4), Exit Roller, Drive belt, and the conveyor to support the rollers are put together into the scanner properly. 3. Check the surface of Drive Roller, or of Exit Roller. <ol style="list-style-type: none"> A. Configuration: Is the roller shape irregular? → Replace the roller. B. Whether the roller surface is dirty → Clean the surface. 4. Check whether the Drive Belt tension is proper. → Re-adjust the belt tension (See 8.3.18.).
U18 (Document remains in scanner)	18	xx	00	00	1. Document remains in scanner.	Remove the document from the scanner.
					2. Paper dust exist on a sensor.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to define the sensor that results in this problem. 2. Blow off the dirt on the surface of the sensor with the accessory blower. (See Sec.7.2.)
					3. A sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to define the sensor that results in this problem. 2. Check each sensor, its connection, and its monitor circuit. <ol style="list-style-type: none"> A. Waiting Sensor → See the 5th item of U11 . B. Starting Sensor → See the 3rd item of U12 . C. Skew (L) or Skew (R) Sensor → See the 6th and 7th items of U20 . D. Ending Sensor → See the 3rd item of U14 .
U20: Skew error	19	00	00	00	1. Document on the Hopper Tray is not set correctly.	Set the document on the Hopper Tray, sliding the Document Guide according to the document width. And execute scanning, again.
					2. ADF Door is not closed firmly.	Close the door surely.
					3. A roller (Paper Feed, Separation, Retard, Drive, Exit, or Free) is dirty.	<ol style="list-style-type: none"> 1. Clean the rollers. (See Sec.7.2.) 2. Clear counter for cleaning roller to zero with the service utility s operation in Sec.9.
					4. A roller (Paper Feed, Separation, Retard, Drive, or Exit) swells irregularly	Replace the roller. Note: After replacing Paper Feed, Separation, and Retard rollers, clear counter for replacing roller to zero with the service utility.
U20: Skew error	19	00	00	00	5. Paper dust exist on or around a Skew Sensor.	Blow off the dirt on the surface of the sensor with the accessory blower. (See Sec.7.2.)

					6. The Skew (L) Sensor does not work properly.	<div><div>1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition.</div><div>2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.)</div><div>3. Check the following connection and soldering condition on each connector.<div><div>A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board)</div><div>B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board)</div></div></div><div>4. Check the following signals.<div><div>A. SKEWL signal (CN5012-4th pin, CN5017-4th pin, CN5022-9th pin, CN1009-14th pin)<div>→ 1.5 V or less (when none exists on the Skew (L) Sensor)</div></div><div>B. Check the reference signals for the SKEWL signal on the CONTROL Board.<div>→ IC1015-9th pin: 1.5 V or less (After initializing) → IC1017-9th pin: Approx. 1.5 V</div></div><div>C. Check comparator output signal.<div>→ IC1017-14th pin: 3.3 V (when no paper exists)</div></div></div></div><div>5. Replace faulty parts or boards.</div></div>		
					7. The Skew (R) Sensor does not work properly.	<div><div>1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition.</div><div>2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.)</div><div>3. Check the following connection and soldering condition on each connector.<div><div>A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board)</div><div>B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board)</div></div></div><div>4. Check the following signals.<div><div>A. SKEWR signal (CN5012-2nd pin, CN5017-2nd pin, CN5022-8th pin, CN1009-15th pin)<div>→ 1.5 V or less (when none exists on the Skew (R) Sensor)</div></div><div>B. Check the reference signals for the SKEWR signal on the CONTROL Board.<div>→ IC1015-2nd pin: 1.5 V or less (After initializing) → IC1017-5th pin: Approx. 1.5 V</div></div><div>C. Check comparator output signal.<div>→ IC1017-2nd pin: 3.3 V (when no paper exists)</div></div></div></div><div>5. Replace faulty parts or boards.</div></div>		
U23 (Double feed error)	1C	00	xx	00	1. Double feed occurs.	Document quality is out of spec. for this scanner.	<div><div>1. Set the correct documents on the Hopper Tray according to this scanner specifications. Note: Refer to Sec.2.</div></div>	
						Manual Feed Selector is in MANUAL .	Set Manual Feed Selector to AUTO and execute scanning, again.	
					Rollers (Paper Feed, Separation, Retard) are not assembled properly.	<div><div>1. Reassemble the rollers.</div></div>		
					Rollers (Paper Feed, Separation, Retard) are dirty.	<div><div>1. Clean the rollers.</div><div>2. Clear counter for cleaning roller to zero with the above service utility.</div></div>		
					Rollers have reached their life expectancy.	<div><div>1. Replace the Paper Feed, Separation, and Retard Rollers after checking each roller configuration and Scanner Counter of Service Utility software.</div><div>2. Clear counter for replacing roller to zero with the above service utility.</div></div>		

					2. Double feed does not occur.	Double Feed Detector (G) does not work properly.	<ol style="list-style-type: none"> 1. Execute Double Feed test in Sec.9.3.6 to check the detector condition. 2. Check whether the Double Feed Detector (G) is aligned properly. 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. Double Feed Detector (G) to CN5021 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following parts soldering condition to repair it. <ol style="list-style-type: none"> A. CONTROL Board IC1024 (43, 44, 45th pins), IC1018 B. SENSOR RELAY Board IC5017, Q5016, Q5017, Q5020, Q5022, Q5023, Q5024, and the surrounding circuit 5. Check the following signals. <ol style="list-style-type: none"> A. DC 24 V signal (CN5022-6th pin) B. JS_CLK (CN5022-3rd pin) → 200 kHz C. USOUND_S1 (CN5021-1st pin) → 200 kHz 6. Replace faulty parts or boards. 	
U23 (Double feed error)	1C	00	xx	00	2. Double feed does not occur.	Double Feed Detector (R) does not work properly.	<ol style="list-style-type: none"> 1. Execute Double Feed test in Sec.9.3.6 to check the detector condition. 2. Check whether the receiver alignment is proper. 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. Double Feed Detector (R) to CN5001 (OUTER CONVEYOR RELAY Board) B. CN5004 (OUTER CONVEYOR RELAY Board) to CN1014 (CONTROL Board) 4. Check the following parts soldering condition to repair it. <ol style="list-style-type: none"> A. CONTROL Board IC1024 (117th pin) B. OUTER CONVEYOR RELAY Board IC5002, IC5004, Q5002, Q5003, and the surrounding circuit 5. Check the following signals on the OUTER CONVEYOR RELAY Board. <ol style="list-style-type: none"> A. IC5002-7th pin: DC12 V B. IC5004-7th pin → See Fig.10.2.5 . 6. Replace faulty parts or boards. 	
U30 (Door open)	20	00	00	00	1. ADF Door or Exit Door is not closed properly.		1. Shut the door properly.	
					2. Door SW (Micro switch) does not work correctly.		<ol style="list-style-type: none"> 1. Execute Key / Sensor in Sec.9.3.6 to check the door switch mechanical condition between the door and micro switch. 2. Check the connection between the door switches (ADF Door Switch, Exit Door Switch) and CN5028 on the POWER RELAY Board. 3. Replace a faulty cable or switch. 	

					3. Monitor circuit to check the door ON/OFF condition is broken.	<ol style="list-style-type: none"> Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> CN5036 (POWER RELAY Board) to CN4005 (DRIVE Board) CN4001 (DRIVE Board) to CN1007 (CONTROL Board) Check the following parts soldering condition to repair it. <ol style="list-style-type: none"> DRIVE Board Q4007, R4001, D4001 CONTROL Board IC1024-120th pin Check the following signals. <ul style="list-style-type: none"> → +24VIL (D4001 Cathode): 24 V → DOOR1 (CN4001-34th pin): 0 V Replace faulty parts or boards. 	
F17 (GA-IMG SDRAM error)	87	xx	00	00	Access error to SDRAM (IC2018, IC2019, IC2020, IC2021) on the INTERFACE Board	<ol style="list-style-type: none"> Check the soldering condition of the Gate Array (IC2047) on the INTERFACE Board to repair it. Check the soldering condition of the SDRAM (IC2018, IC2019, IC2020, IC2021) on the INTERFACE Board to repair it. Replace faulty parts or INTERFACE Board. 	
F18 (GA-IMG Additional SDRAM error)	88	00	00	00	Access error to an additional SDRAM attached to CN2007	<ol style="list-style-type: none"> Check whether the additional SDRAM is attached to CN2007 properly. Or re-attach it. Check the SDRAM is one of the memories recommended by PCC Check the soldering condition of the Gate Array (IC2047) and its surrounding circuit on the INTERFACE Board to repair it. Check the soldering condition of the CN2007 (for the SDRAM) and its surrounding circuit on the INTERFACE Board to repair it. Replace faulty parts or INTERFACE Board. 	
F31 (Analogue IC Error)	95	00	00	00	Access error to Analogue IC	<ol style="list-style-type: none"> Check the soldering condition of the IC1010 to IC1013 and its surrounding circuit on the CONTROL Board to repair it. Check the soldering condition of the IC1024 and its surrounding circuit on the CONTROL Board to repair it. Replace faulty parts or CONTROL Board. 	
F32 (SCSI IC Error)	96	00	00	00	Access error to SCSI Controller	<ol style="list-style-type: none"> Check the connection and soldering condition between CN2000 (INTERFACE Board) and CN1000 (CONTROL Board). Check the soldering condition of the SCSI Controller (IC2029) and surrounding circuit on the INTERFACE Board to repair it. Check the soldering condition of the Address Decoder (IC1032: especially 15th pin) and its surrounding circuit on the CONTROL Board to repair it. Replace faulty parts or boards (CONTROL or INTERFACE). 	
F33 (USB IC Error)	97	00	00	00	Access error to USB Controller	<ol style="list-style-type: none"> Check the connection and soldering condition between CN2000 (INTERFACE Board) and CN1000 (CONTROL Board). Check the soldering condition of the USB Controller (IC2031) and its surrounding circuit on the INTERFACE Board to repair it. Check the soldering condition of the Address Decoder (IC1032: especially 14th pin) and its surrounding circuit on the CONTROL Board to repair it. Replace faulty parts or boards (CONTROL or INTERFACE). 	

F34 (EEPROM Error)	98	00	00	00	Access error to EEPROM	<ol style="list-style-type: none"> 1. Check the soldering condition of the EEPROM (IC1023) and its surrounding circuit on the CONTROL Board to repair it. 2. Check the soldering condition of the CPU (IC1024: 113, 114, 115th pins) and its surrounding circuit on the CONTROL Board to repair it. 3. Replace faulty parts or CONTROL Board. 	
F36 (GA-SEN (Front) SDRAM Error)	9A	xx	00	00	Access error to SDRAM (IC2006, IC2007, IC2008)	<ol style="list-style-type: none"> 1. Check the soldering condition of the Gate Array GA-SEN (IC2045) and its surrounding circuit on the INTERFACE Board to repair it. 2. Check the soldering condition of the SDRAM (IC2006, IC2007, IC2008) and its surrounding circuit on the INTERFACE Board to repair it. 3. Replace faulty parts or INTERFACE Board. 	
F37 (Overrun Error)	9B	01	xx	xx	Overrun error during image scanning process	<ol style="list-style-type: none"> 1. Confirm the firmware version. 	
F38 (GA-SEN (Back) SDRAM Error)	9C	xx	00	00	Access error to SDRAM (IC2010, IC2011, IC2012)	<ol style="list-style-type: none"> 1. Check the soldering condition of the Gate Array GA-SEN (IC2046) and its surrounding circuit on the INTERFACE Board to repair it. 2. Check the soldering condition of the SDRAM (IC2010, IC2011, IC2012) and its surrounding circuit on the INTERFACE Board to repair it. 3. Replace faulty parts or INTERFACE Board. 	
F40 (Hopper Error)	30	00	00	00	1. Paper Feed Motor does not work properly.	<ol style="list-style-type: none"> 1. Check the hopper mechanism condition by carrying out Hopper Drive test. (See 9.3.6.) 2. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. Paper Feed Motor to CN5032 (POWER RELAY Board) B. CN5025 to CN5032 on the POWER RELAY Board 3. Check the following signals → CN5032-1, 4, 5, 7th pins See Fig.10.2.1 . 4. Replace faulty cables. 5. Replace the Paper Feed Motor. 	
					2. Paper Feed Motor control circuit does not work properly.	<ol style="list-style-type: none"> 1. Check following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5025 (POWER RELAY Board) to CN4008 (DRIVE Board) B. CN4001 (DRIVE Board) to CN1007 (CONTROL Board) C. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the soldering condition of IC4002 on DRIVE Board to repair it. 3. Check the following signals on the DRIVE Board. <ol style="list-style-type: none"> A. IC4002-11th pin (CLK): See Fig.10.2.2 . B. IC4002-7th pin (VREF): 2.3 V or less C. IC4002-15th pin (ENABLE): 5 V (when executing Feed Motor test) 4. Check the soldering condition of IC1038 on CONTROL Board to repair it. <ol style="list-style-type: none"> A. 11th pin (CLK) B. 2, 5, 6, 9, and 12th pins 5. Replace faulty parts or boards. 	

F40 (Hopper Error)	30	00	00	00	3. Rotation from the Paper Feed Motor Gear is not transmitted to the hopper properly.	<ol style="list-style-type: none"> 1. Check the hopper mechanism condition by carrying out Hopper Drive test. (See 9.3.6.) Note: Hopper lift drive mechanism → See 6.3 and 6.4. 2. Reassemble improper lay-out or replace faulty parts. 	
					4. Hopper Home Detector does not work correctly.	<ol style="list-style-type: none"> 1. Check the alignment of Hopper Home Detector and its actuator is proper. 2. Execute Key / Sensor test in Sec.9.3.6 to check the sensor condition. 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5007 (HOPPER HOME DETECTOR Board) to CN5018 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the soldering condition of IC5007 and its surrounding circuit on the HOPPER HOME DETECTOR Board, and of IC1036 and its surrounding circuit on the CONTROL Board to repair it. 5. Check the following signals. HOPPER_HOME signal (CN5007-3rd pin on the HOPPER HOME DETECTOR Board, IC1036-3rd pin on the CONTROL Board) → Approx. 3.3 V (when the actuator interrupts the detector) 6. Replace faulty parts on boards. 	
F41 (Carriage Error)	31	00	00	00	1. Carriage mechanism does not work properly.	<ol style="list-style-type: none"> 1. Restart the scanner and check whether the carriage goes back to the home position. 2. Execute Feed test (Flatbed mode) in Sec.9.3.6 to check the carriage mechanism. 3. Check the carriage shaft is not distorted. 4. Check the carriage belt tension and allocation. And adjust the tension, as required. (See 8.2.16.) 5. Check whether rotation from the carriage motor s gear is transmitted to the carriage belt properly. 	
					2. Carriage Motor does not work properly.	<ol style="list-style-type: none"> 1. Check the carriage mechanism condition, by carrying out Feed test. (See 9.3.6.) 2. Check the following connection and soldering condition on each connector. → Carriage Motor to CN4010 (DRIVE Board) 3. Check the following signals. → CN4010-1, 4, 5, and 7th pins See Fig.10.2.6 . (when executing Feed test (Flatbed mode)) 4. Replace faulty cables. 5. Replace the Carriage Motor. 	
F41 (Carriage Error)	31	00	00	00	3. Carriage Motor control circuit does not work properly.	<ol style="list-style-type: none"> 1. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN4001 (DRIVE Board) to CN1007 (CONTROL Board) B. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the soldering condition of the IC4003 and its surrounding circuit on the DRIVE Board. 3. Check the following signals on the DRIVE Board. <ol style="list-style-type: none"> A. IC4003-11th pin (CLK): See Fig.10.2.7 . (when executing Feed test (Flatbed mode)) B. IC4003-7th pin (VREF): 2.3 V or less C. IC4003-15th pin (ENABLE): 5 V (when executing Feed test (Flatbed mode)) 4. Check the soldering condition of IC1040 and its surrounding circuit on the CONTROL Board to repair it. 5. Check the soldering condition of the following signals on the CONTROL Board <ol style="list-style-type: none"> A. IC1040-11th pin (CLK) B. IC1040-2, 5, 6, 9, and 12th pins 6. Check the soldering condition of IC2045-225th pin on the INTERFACE Board. 7. Replace faulty parts or boards. 	

					4. Carriage Home Detector does not work correctly.	<ol style="list-style-type: none"> 1. Check the alignment of the Carriage Home Detector and its actuator is proper. 2. Execute Key / Sensor test in Sec.9.3.6 to check the sensor condition. 3. Check the following connection and soldering condition of each connector. <ol style="list-style-type: none"> A. CN5035 (CARRIAGE HOME DETECTOR Board) to CN1010 (CONTROL Board) 4. Check the soldering condition of IC5019 and its surrounding circuit on the CARRIAGE HOME DETECTOR Board to repair it. 5. Check the following signals. <ul style="list-style-type: none"> → CAHOME signal (CN5035-2nd pin on the CARRIAGE HOME DETECTOR Board, IC1035-7th pin on the CONTROL Board) → Approx. 3 V (when the actuator interrupts the detector) 6. Replace faulty parts or boards. 	
F50 (Waiting Sensor adjustment error)	40	00	00	00	1. Paper dust exist on or around the Waiting Sensor.	<ol style="list-style-type: none"> 1. Blow off the dirt with the accessory blower. (See 7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	
					2. Waiting Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5006 (WAITING SENSOR Board) to CN5002 (OUTER CONVEYOR RELAY Board) B. CN5004 (OUTER CONVEYOR RELAY Board) to CN1014 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. STBY signal (CN5006-2nd pin, CN5004-9th pin) <ul style="list-style-type: none"> → 1.5 V or less (when none exists on the Waiting Sensor) B. Check the reference signal for the STBY signal on the CONTROL Board. <ul style="list-style-type: none"> IC1014-2nd pin: 1.5 V or less IC1016-5th pin: Approx. 1.5 V C. Check comparator output signal. <ul style="list-style-type: none"> → IC1016-2nd pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards. 	
F51 (Starting Sensor adjustment error)	41	00	00	00	1. Paper dust exist on or around the Starting Sensor.	<ol style="list-style-type: none"> 1. Blow off the dirt with the accessory blower. (See 7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	
					2. Starting Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. PHEAD signal (CN5012-3rd pin, CN5017-3rd pin, CN5022-10th pin) <ul style="list-style-type: none"> → 1.5 V or less (when none exists on the Waiting Sensor) B. Check the reference signals for the PHEAD signal on the CONTROL Board. <ul style="list-style-type: none"> → IC1014-9th pin: 1.5 V or less (After initializing) → IC1016-9th pin: Approx. 1.5 V C. Check comparator output signal. <ul style="list-style-type: none"> → IC1016-14th pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards. 	

F52 (Skew (R) Sensor adjustment error)	42	00	00	00	1. Paper dust exist on or around a Skew Sensor.	<ol style="list-style-type: none"> 1. Blow off the dirt on the surface of the sensor with the accessory blower. (See 7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	
					2. The Skew (R) Sensor does not work properly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. SKEWR signal (CN5012-2nd pin, CN5017-2nd pin, CN5022-8th pin, CN1009-15th pin) → 1.5 V or less (when none exists on the Waiting Sensor) B. Check the reference signals for the SKEWR signal on the CONTROL Board. → IC1015-2nd pin: 1.5 V or less (After initializing) → IC1017-5th pin: Approx. 1.5 V C. Check comparator output signal. → IC1017-2nd pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards. 	
F53 (Skew (L) Sensor adjustment error)	43	00	00	00	1. Paper dust exist on or around a Skew Sensor.	<ol style="list-style-type: none"> 1. Blow off the dirt on the surface of the sensor with the accessory blower. (See 7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	
					2. The Skew (L) Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5012 (STARTING SENSOR Board) to CN5017 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. SKEWL signal (CN5012-4th pin, CN5017-4th pin, CN5022-9th pin, CN1009-14th pin) → 1.5 V or less (when none exists on the Waiting Sensor) B. Check the reference signals for the SKEWL signal on the CONTROL Board. → IC1015-9th pin: 1.5 V or less (After initializing) → IC1017-9th pin: Approx. 1.5 V C. Check comparator output signal. → IC1017-14th pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards. 	
F55 (Ending Sensor adjustment error)	45	00	00	00	1. Paper dust exist on or around the Ending Sensor.	<ol style="list-style-type: none"> 1. Blow off the dirt with the accessory blower. (See 7.2.) 2. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 	

					2. Ending Sensor does not work correctly.	<ol style="list-style-type: none"> 1. Execute Key / Sensor and Sensor Sensitive Level tests in Sec.9.3.6 to check the sensor condition. 2. Check whether the sensor alignment is proper (whether the sensor direction faces to its reflector.) 3. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CN5015 (ENDING SENSOR Board) to CN5016 (SENSOR RELAY Board) B. CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) 4. Check the following signals. <ol style="list-style-type: none"> A. PEXIT signal (CN5015-2nd pin, CN5016-2nd pin, CN5022-7th pin, CN1009-16th pin) → 1.5 V or less (when none exists on the Ending Sensor) B. Check the reference signals for the PEXIT signal on the CONTROL Board. → IC1015-6th pin: 1.5 V or less (After initializing) → IC1017-7th pin: Approx. 1.5 V C. Check comparator output signal. → IC1017-1st pin: 3.3 V (when no paper exists) 5. Replace faulty parts or boards.
F60 (Front side gain adjustment error)	50	00	00	00	1. ADF Glass (F) is dirty.	Clean the glass surface. (See 7.2.)
					2. CIS (F) lamp does not light.	<ol style="list-style-type: none"> 1. Execute CIS Level test in Sec.9.3.6 to check the peak level. 2. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CIS (F) to Lamp Drive B. Lamp Drive to CN3000 (CARRIAGE RELAY Board) C. CN3002 (CARRIAGE RELAY Board) to CN1015 (CONTROL Board) 3. Check the lamp control signals to the CIS (F) → CN3000-1st pin: 24 V → CN3000-2nd pin: 5 V (when lamp is ON) 4. Replace faulty parts or boards.
					3. Pixel data from CIS (F) or image processing circuit have some problems.	<ol style="list-style-type: none"> 1. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> A. CIS (F) to CN3003 (CARRIAGE RELAY Board) B. CN3001 (CARRIAGE RELAY Board) to CN1003 (CONTROL Board) C. CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) 2. Check the following CIS timing signals on the CARRIAGE RELAY Board are normal. → CN3003-35th pin: 5 MHz → CN3003-33rd pin: 5 MHz 3. Check the soldering condition of the IC1010, IC1011, IC1024, and their surrounding circuit on the CONTROL Board. 4. Check the soldering condition of the IC1008, IC1009, and their surrounding circuit on the CONTROL Board 5. Check the soldering condition of the IC2045 and its surrounding circuit on the INTERFACE Board. 6. Replace faulty parts or boards.

F61 (Front side black level error)	51	00	00	00	Pixel data from CIS (F) or image processing circuit have some problems.	<ol style="list-style-type: none"> Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> CIS (F) to CN3003 (CARRIAGE RELAY Board) CN3001 (CARRIAGE RELAY Board) to CN1003 (CONTROL Board) CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) Check the following CIS timing signals on the CARRIAGE RELAY Board are normal. <ul style="list-style-type: none"> → CN3003-35th pin: 5 MHz → CN3003-33rd pin: 5 MHz Check the soldering condition of the IC1010, IC1011, IC1024, and their surrounding circuit on the CONTROL Board. Check the soldering condition of the IC1008, IC1009, and their surrounding circuit on the CONTROL Board. Check the soldering condition of the IC2045 and its surrounding circuit of the INTERFACE Board. Replace faulty parts or boards. 	
F62 (Back side gain adjustment error)	52	00	00	00	1. ADF Glass (B) is dirty.	Clean the glass surface. (See 7.2.)	
					2. CIS (B) lamp does not light.	<ol style="list-style-type: none"> Execute CIS Level test in Sec.9.3.6 to check the peak level. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> CIS (B) to Lamp Drive Lamp Drive to CN5029 (POWER RELAY Board) CN5036 (POWER RELAY Board) to CN4005 (DRIVE Board) CN5025 (POWER RELAY Board) to CN4008 (DRIVE Board) CN4001 (DRIVE Board) to CN1007 (CONTROL Board) CN4003 (DRIVE Board) to CN802 (POWER Board) Check the lamp control signals to the CIS (B) <ul style="list-style-type: none"> → CN5029-1st pin: 24 V → CN5029-2nd pin: 5 V (when lamp is ON) Replace faulty parts or boards. 	
					3. Pixel data from CIS (B) or image processing circuit have some problems.	<ol style="list-style-type: none"> Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> CIS (B) to CN3006 (CIS RELAY Board) CN3005 (CIS RELAY Board) to CN1002 (CONTROL Board) CN3004 (CIS RELAY Board) to CN1001 (CONTROL Board) CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) Check the following CIS timing signals are normal. <ul style="list-style-type: none"> → CN3006-6th pin: 5 MHz → CN3006-8th pin: 5 MHz Check the soldering condition of the IC1012, IC1013, IC1024, and their surrounding circuit on the CONTROL Board. Check the soldering condition of the IC1006, IC1007, and their surrounding circuit on the CONTROL Board Check the soldering condition of the IC2046 and its surrounding circuit on the INTERFACE Board. Replace faulty parts or boards. 	

F63 (Back side black level error)	53	00	00	00	Pixel data from CIS (B) or image processing circuit have some problems.	<ol style="list-style-type: none"> Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> CIS (B) to CN3006 (CIS RELAY Board) CN3005 (CIS RELAY Board) to CN1002 (CONTROL Board) CN3004 (CIS RELAY Board) to CN1001 (CONTROL Board) CN1000 (CONTROL Board) to CN2000 (INTERFACE Board) Check the following CIS timing signals are normal. <ul style="list-style-type: none"> → CN3006-6th pin: 5 MHz → CN3006-8th pin: 5 MHz Check the soldering condition of the IC1012, IC1013, IC1024, and their surrounding circuit on the CONTROL Board. Check the soldering condition of the IC1006, IC1007, and their surrounding circuit on the CONTROL Board. Check the soldering condition of the IC2046 and its surrounding circuit on the INTERFACE Board. Replace faulty parts or boards. 	
F80 (Double Feed Detector adjustment error)	60	00	00	00	1. Double Feed Detector (G) does not work properly.	<ol style="list-style-type: none"> Execute Double Feed test in Sec.9.3.6 to check the detector condition. Check whether the generator alignment is proper. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> Double Feed Detector (G) to CN5021 (SENSOR RELAY Board) CN5022 (SENSOR RELAY Board) to CN1009 (CONTROL Board) Check the following parts soldering condition to repair it. <ol style="list-style-type: none"> CONTROL Board IC1024 (43, 44, 45th pins), IC1018 SENSOR RELAY Board IC5017, Q5016, Q5017, Q5020, Q5022, Q5023, Q5024, and the surrounding circuit Check the following signals. <ol style="list-style-type: none"> DC 24 V signal (CN5022-6th pin) JS_CLK (CN5022-3rd pin) → 200 kHz USOUND_S1 (CN5021-1st pin) → 200 kHz Replace faulty parts or boards. 	
					2. Double Feed Detector (R) does not work properly.	<ol style="list-style-type: none"> Execute Double Feed test in Sec.9.3.6 to check the detector condition. Check whether the receiver alignment is proper. Check the following connection and soldering condition on each connector. <ol style="list-style-type: none"> Double Feed Detector (R) to CN5001 (OUTER CONVEYOR RELAY Board) CN5004 (OUTER CONVEYOR RELAY Board) to CN1014 (CONTROL Board) Check the following parts soldering condition to repair it. <ol style="list-style-type: none"> CONTROL Board IC1024 (117th pin) OUTER CONVEYOR RELAY Board IC5002, IC5004, Q5002, Q5003, and the surround circuit Check the following signals on the OUTER CONVEYOR RELAY Board. <ol style="list-style-type: none"> IC5002-7th pin: DC12 V IC5004-7th pin) → See Fig.10.2.5 . Replace faulty parts or boards. 	

Fig.10.2.1



Fig.10.2.2

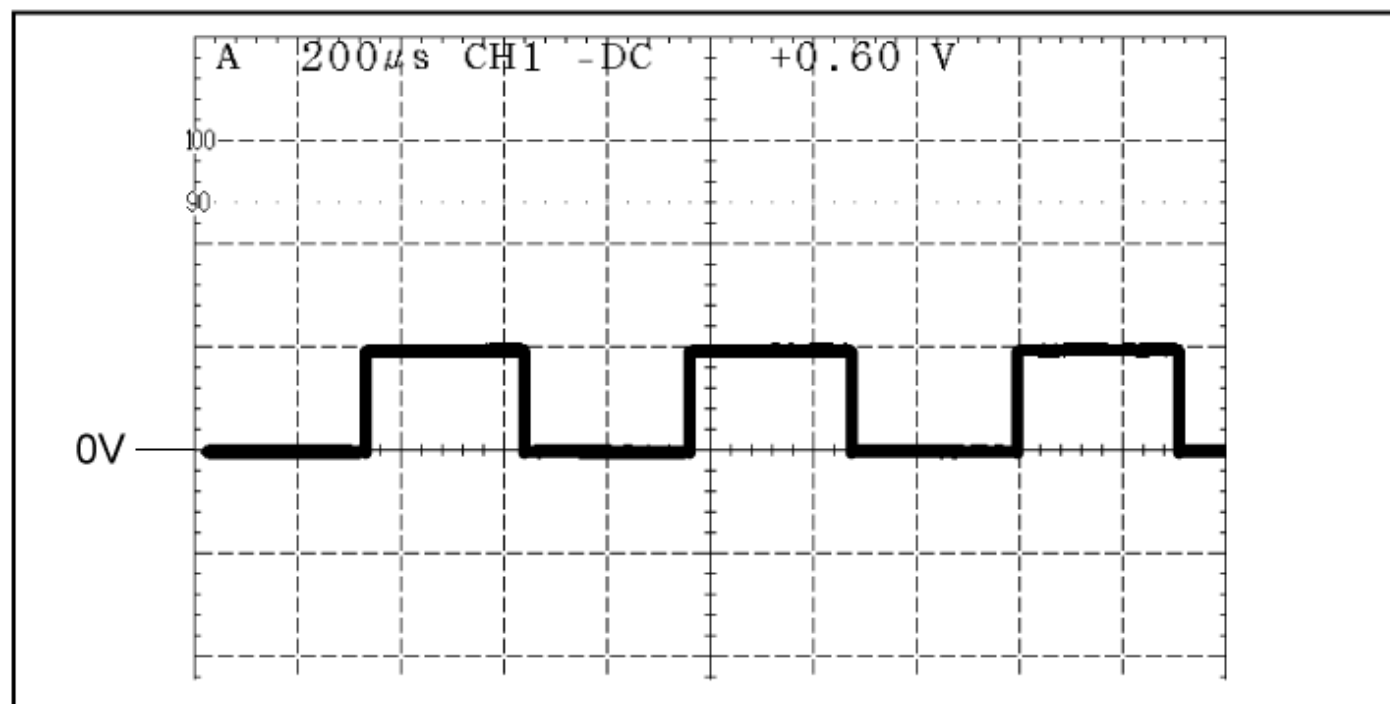


Fig.10.2.3

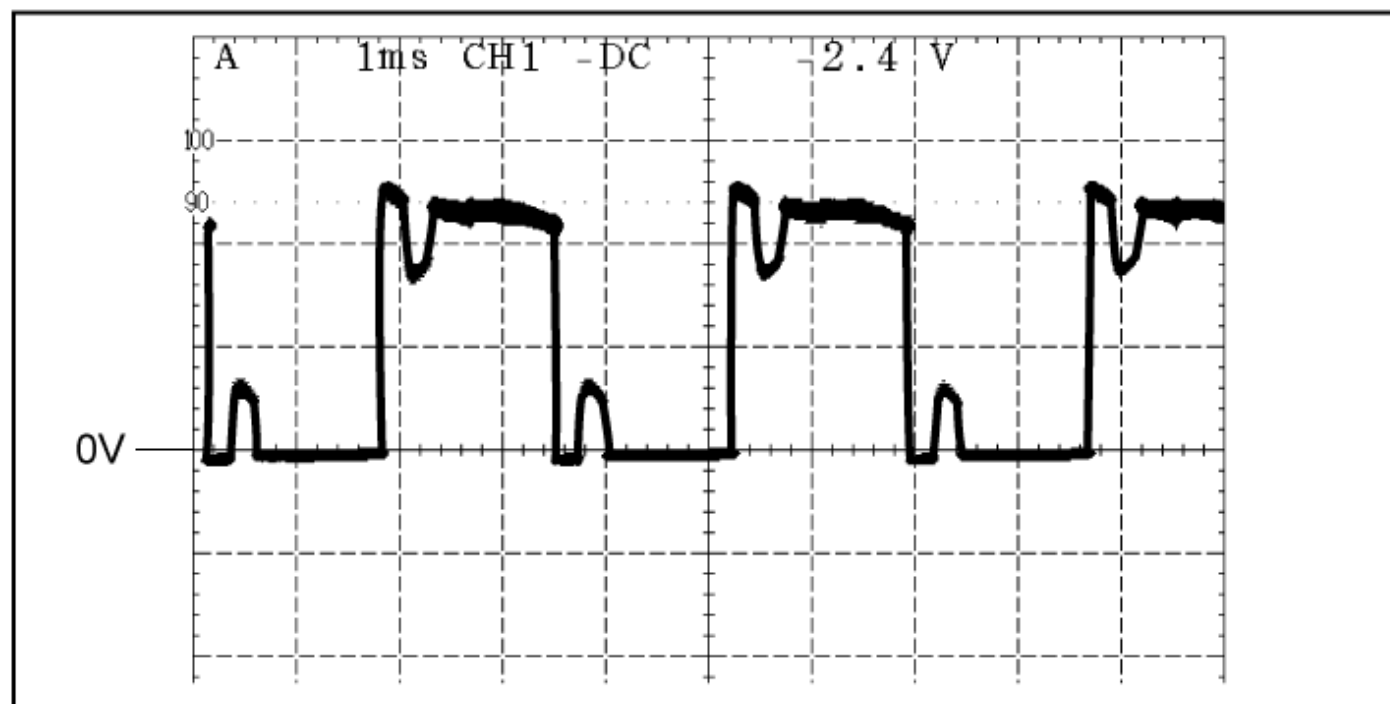


Fig.10.2.4

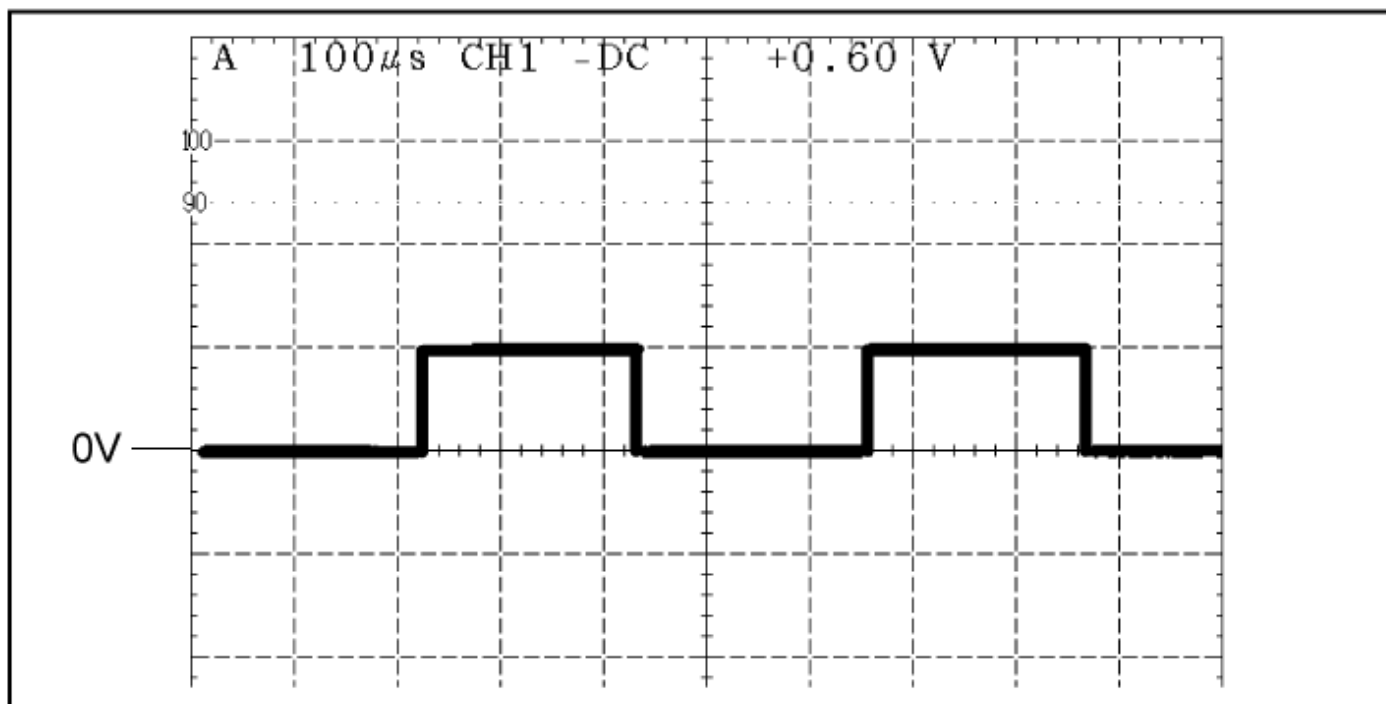


Fig.10.2.5

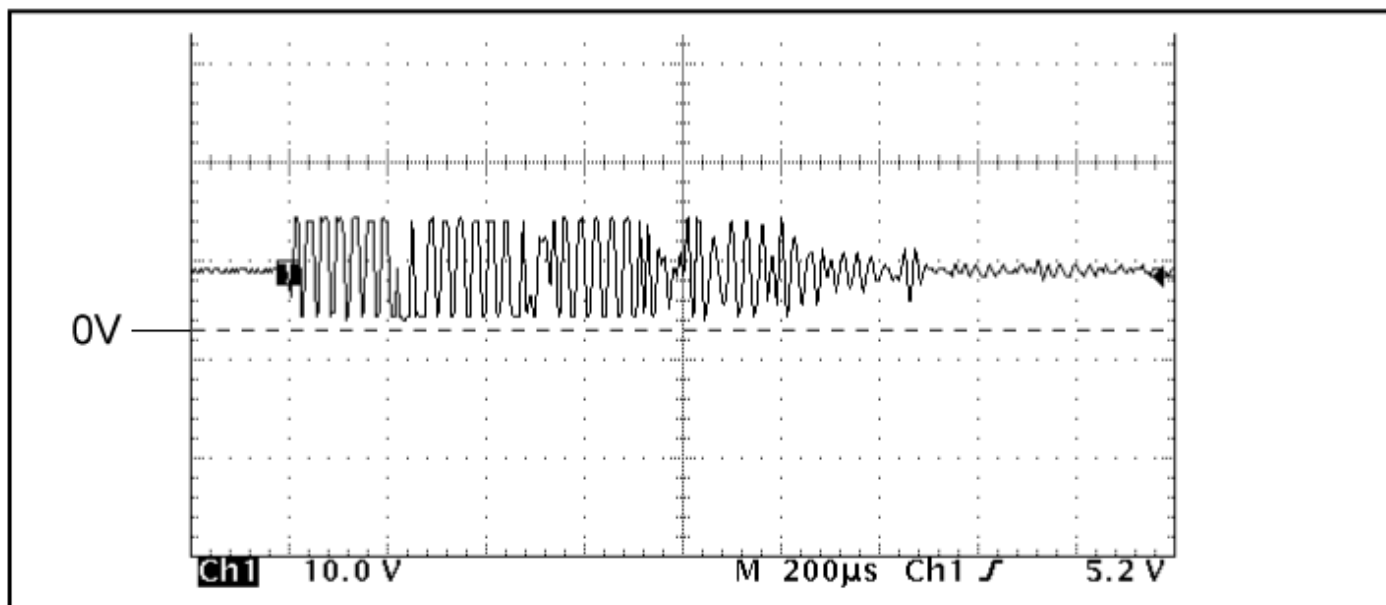


Fig.10.2.6

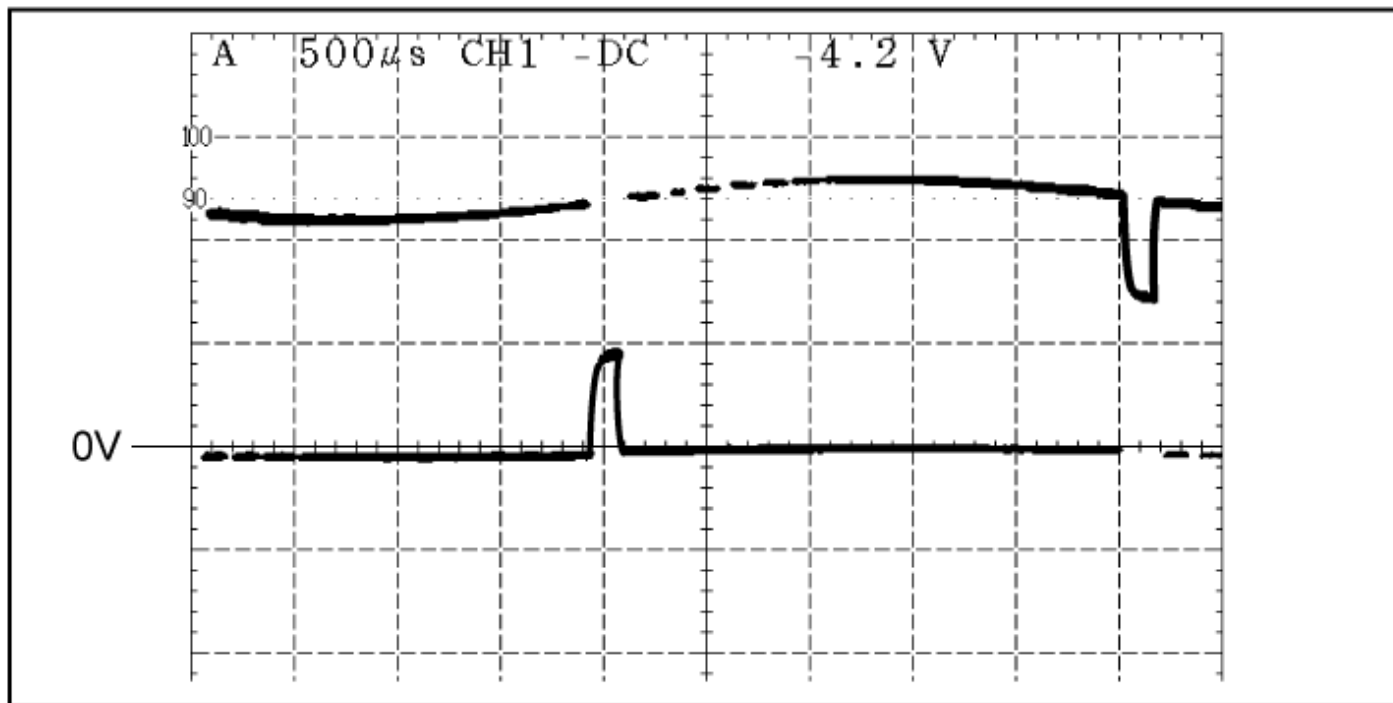
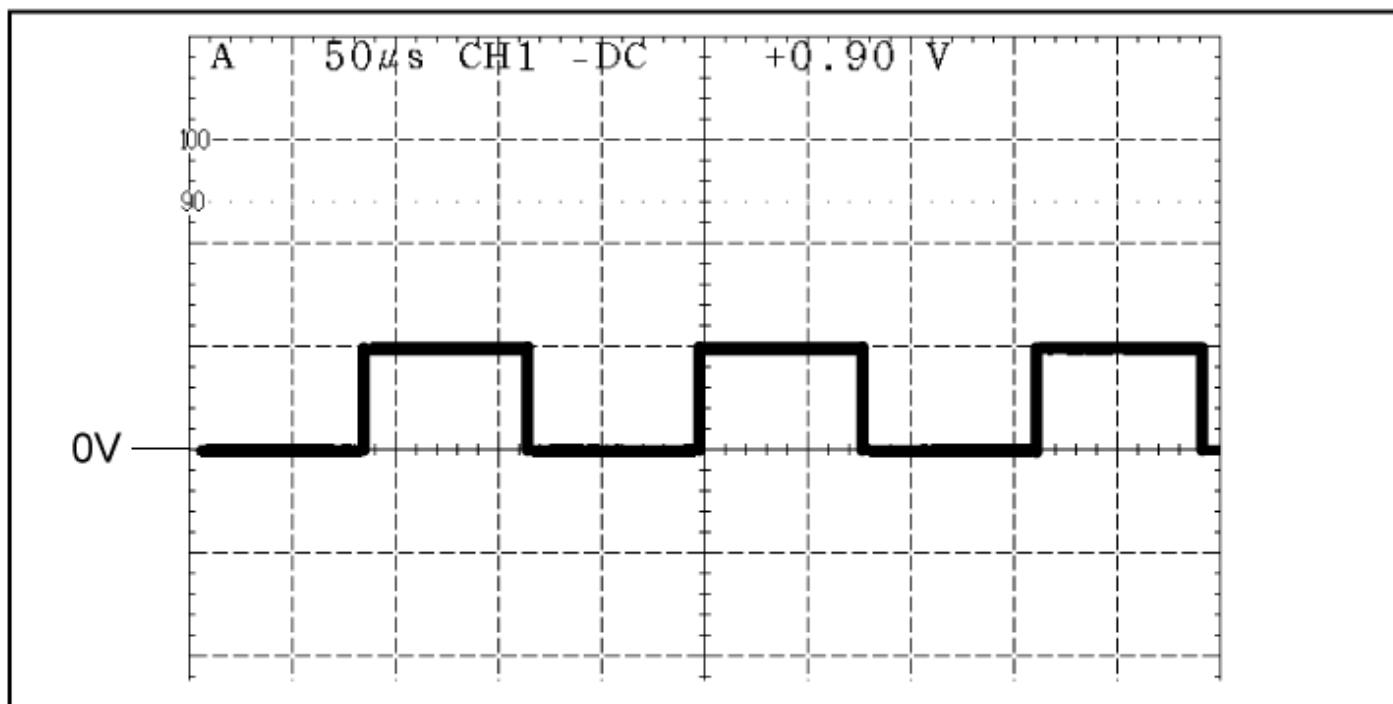


Fig.10.2.7



[TOP](#) [PREVIOUS](#) [NEXT](#)

10.3 Requirement After Parts Replacement

[TOP](#) [PREVIOUS](#) [NEXT](#)

Following adjustments are required when a circuit board assembly or part is replaced.

Replaced circuit board assembly or part		Required adjustment
CONTROL Board		<ol style="list-style-type: none">1. Adjust Shading .2. Adjust All Position .3. Adjust Individual Position manually as required.
STARTING SENSOR Board	*1	<ol style="list-style-type: none">1. Adjust Front V. Position and Back V. Position and Length in Individual Position or adjust All Position .
CIS (F) and Lamp Drive Board	*1	<ol style="list-style-type: none">1. Adjust Shading .2. Adjust All Position or the following adjustment should be needed.<ol style="list-style-type: none">A. Adjust Front V. Position in Individual Position .B. Adjust Front H. Position in Individual Position .
CIS (B) and Lamp Drive Board	*1	<ol style="list-style-type: none">1. Adjust Shading .2. Adjust All Position or the following adjustment should be needed.<ol style="list-style-type: none">A. Adjust Back V. Position in Individual Position .B. Adjust Back H. Position in Individual Position .
Reference Plate (F)		<ol style="list-style-type: none">1. Adjust Shading .
Reference Plate (B)		<ol style="list-style-type: none">1. Adjust Shading .
Drive Roller	*1	<ol style="list-style-type: none">1. Adjust Length in Individual Position or adjust All Position .
Exit Roller	*1	<ol style="list-style-type: none">1. Adjust Length in Individual Position or adjust All Position .

Others (When assembling or disassembling parts which will affect the scanning positions.)	*1	<p>1. Adjust the following adjustment or All Position .</p> <p>A. Adjust Front V. Position in Individual Position .</p> <p>B. Adjust Front H. Position in Individual Position .</p> <p>C. Adjust Back V. Position in Individual Position .</p> <p>D. Adjust Back H. Position in Individual Position .</p>
---	----	---

Note:

*1When [All Position](#) is done, even the setting values except for the value set in the [Individual Position](#) will be renewed.

[TOP](#) [PREVIOUS](#) [NEXT](#)

11 CIRCUIT DESCRIPTION

[TOP](#) [PREVIOUS](#) [NEXT](#)

[11.1 Block Diagram-1 \(Image Processing\)](#)

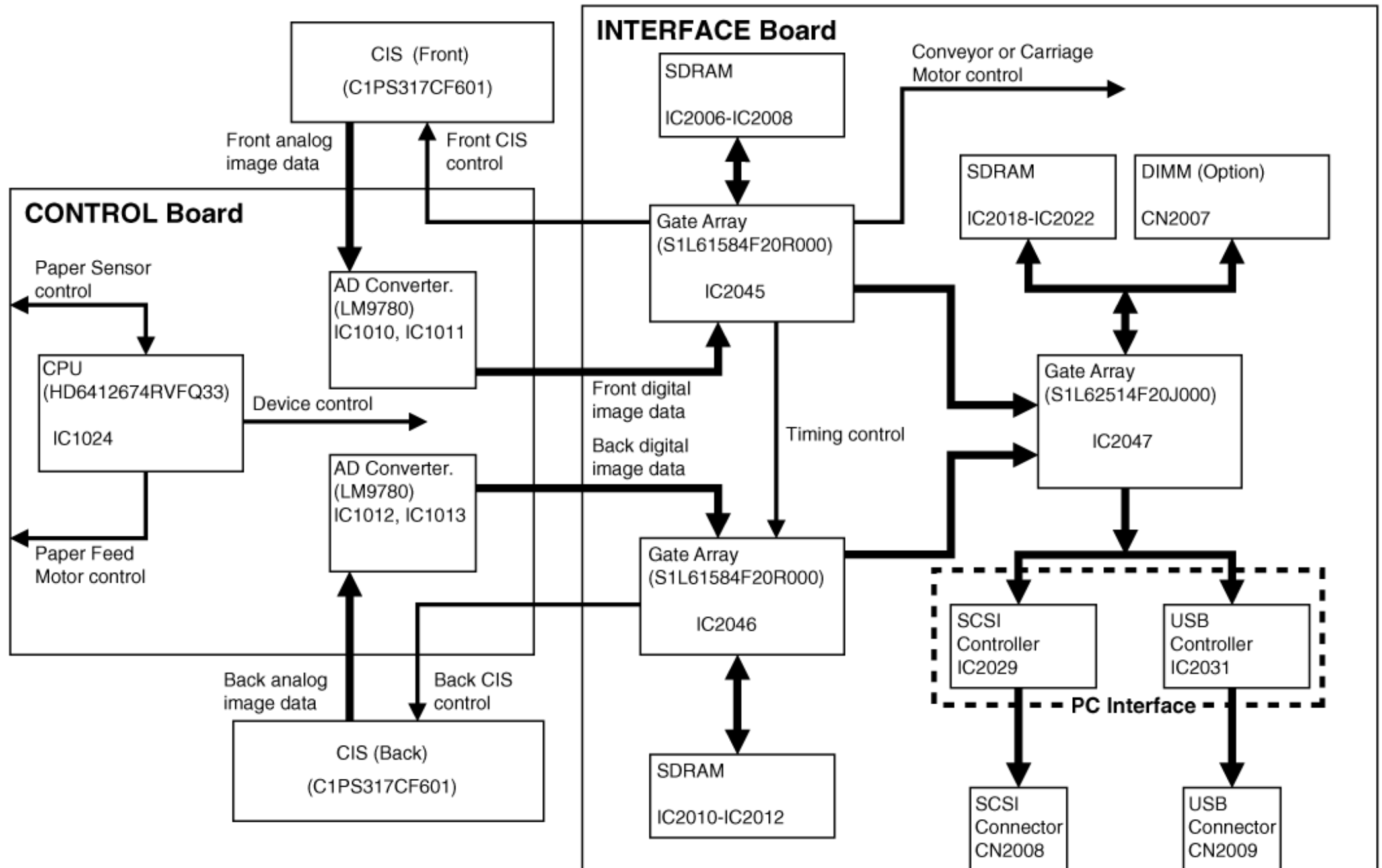
[11.2 Block Diagram-2 \(Board\)](#)

[11.3 Explanation of Connector](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

11.1 Block Diagram-1 (Image Processing)

[TOP](#) [PREVIOUS](#) [NEXT](#)



On this system, CPU (IC1024) controls the operation for Interface Controllers (SCSI, USB), Gate Arrays (IC2045, IC2046, IC2047), Sensors (Paper Sensor and others), Motors (Paper Feed, Conveyor, Carriage)

Motor pulse signals for the paper feed scanning on the ADF mode are provided from the CPU (IC1024), directly.

On the other hand, motor pulse signals for conveying paper on the ADF mode and for the carriage operation to scan paper on the Flatbed are provided from the Gate Array (IC2045).

This scanner has 2 CISs (CIS (Front), CIS (Back)) to scan image signals for front and back sides respectively.

Both of them are used for duplex scanning on the ADF mode. (When scanning on the Flatbed, only a CIS (Front) is available)

The Gate Array (IC2045) works as the controller of CIS (Front) and AD converters (IC1010, IC1011) to preprocess the front image data.

And the Gate Array (IC2046) works as the controller of CIS (Back) and AD converters (IC1012, IC1013) to preprocess the back image data.

After finishing this, the Gate Array (IC2047) postprocesses data from the Gate Arrays (IC2045 and IC2046) respectively to be binary or compressed data, and to be sent to PC via PC Interface (USB or SCSI).

Image processing is as follows.

(Image Processing)

1. At first, according to the Front CIS control signal from the Gate Array (IC2045), analog pixel data are transmitted from the CIS (Front) to the AD Converter (IC1010, IC1011).

And also according to Back CIS control signal from the Gate Array (IC2046), analog pixel data are transmitted from the CIS (Back) to the AD Converter (IC1012, IC1013).

2. The AD Converters (IC1010, IC1011) and (IC1012, IC1013) convert the analog pixel data to the digital, respectively.
3. The digital data on the front side are transmitted to the Gate Array (IC2045).

The Gate Array (IC2045) enforces shading correction, line correction, and Dpi transformation upon the data, using SDRAM (IC2006, IC2007, IC2008).

And the corrected data are transmitted to the Gate Array (IC2047).

In parallel, to the back side data from AD Converters (IC1012, IC1013), the Gate Array (IC2046) enforces shading correction, line correction, and Dpi transformation upon the data, using SDRAM (IC2010, IC2011, IC2012).

And the corrected data are transmitted to the Gate Array (IC2047).

4. To the above front and back sides data, the Gate Array (IC2047) performs binary processing (simple binary, auto binary, dither, error diffusion), color, or gray scale image processing (MTF, Moiré Reduction and others), and memorizes the processed data into SDRAM (IC2018, IC2019, IC2020, IC2021, and IC2022) and/or DIMM

(mounted to CN2007 additionally, as required).

5. After executing compression process (Binary: MH, MR, or MMR / Color or Gray-scale: JPEG) to the stored data in the SDRAM (IC2018 to IC2022) according to the command from PC, the data are transmitted to PC via PC Interface (SCSI Controller(IC2029) or USB (IC2031)).

[TOP](#) [PREVIOUS](#) [NEXT](#)

11.2 Block Diagram-2 (Board)

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

11.3 Explanation of Connector

[TOP](#) [PREVIOUS](#) [NEXT](#)



9

9

9

9

9

9

9

9

9

9

9

9

12 CIRCUIT BOARDS

[TOP](#) [PREVIOUS](#) [NEXT](#)

Note: Distinction of PbF PCB

PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

[Index](#)

12.1 CONTROL Board

12.2 INTERFACE Board

12.3 DRIVE Board

12.4 CARRIAGE RELAY Board

12.5 CIS RELAY Board

12.6 OUTER CONVEYOR RELAY Board

12.7 WAITING SENSOR Board

12.8 ENDING SENSOR Board

12.9 HOPPER HOME DETECTOR Board

12.10 SIZE DETECTOR Board

12.11 STARTING SENSOR Board

12.12 HOPPER RELAY Board

12.13 SENSOR RELAY Board

12.14 POWER RELAY Board

12.15 PANEL Board

12.16 DOCUMENT COVER DETECTOR Board

12.17 CARRIAGE HOME DETECTOR Board

12.18 POWER Board

[12.1 CONTROL Board](#)

[12.1.1 Front Side](#)

[12.1.2 Back Side](#)

[12.2 INTERFACE Board](#)

[12.2.1 Front Side](#)

[12.2.2 Back Side](#)

[12.3 DRIVE Board](#)

[12.4 CARRIAGE RELAY Board](#)

[12.4.1 Front Side](#)

[12.4.2 Back Side](#)

[12.5 CIS RELAY Board](#)

[12.5.1 Front Side](#)

[12.5.2 Back Side](#)

[12.6 OUTER CONVEYOR RELAY Board](#)

[12.7 WAITING SENSOR Board](#)

[12.8 ENDING SENSOR Board](#)

[12.9 HOPPER HOME DETECTOR Board](#)

[12.10 SIZE DETECTOR Board](#)

[12.11 STARTING SENSOR Board](#)

[12.12 HOPPER RELAY Board](#)

[12.13 SENSOR RELAY Board](#)

[12.14 POWER RELAY Board](#)

[12.15 PANEL Board](#)

[12.16 DOCUMENT COVER DETECTOR Board](#)

[12.17 CARRIAGE HOME DETECTOR Board](#)

[12.18 POWER Board](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.1 CONTROL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

[12.1.1 Front Side](#)

[12.1.2 Back Side](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.1.1 Front Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.1.2 Back Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.2 INTERFACE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

[12.2.1 Front Side](#)

[12.2.2 Back Side](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.2.1 Front Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.2.2 Back Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.3 DRIVE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.4 CARRIAGE RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

[12.4.1 Front Side](#)

[12.4.2 Back Side](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.4.1 Front Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.4.2 Back Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.5 CIS RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

[12.5.1 Front Side](#)

[12.5.2 Back Side](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

12.5.1 Front Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.5.2 Back Side

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.6 OUTER CONVEYOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.7 WAITING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.8 ENDING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.9 HOPPER HOME DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.10 SIZE DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.11 STARTING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.12 HOPPER RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.13 SENSOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.14 POWER RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.15 PANEL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.16 DOCUMENT COVER DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.17 CARRIAGE HOME DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

12.18 POWER Board

[TOP](#) [PREVIOUS](#) [NEXT](#)




[TOP](#) [PREVIOUS](#) [NEXT](#)

13 SCHEMATIC DIAGRAM

[TOP](#) [PREVIOUS](#) [NEXT](#)

IMPORTANT SAFETY NOTICE

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

[Index](#)

13.1 CONTROL Board

13.2 INTERFACE Board

13.3 DRIVE Board

13.4 CARRIAGE RELAY and CIS RELAY Boards

13.5 RELAY, SENSOR, and PANEL Boards

13.6 POWER Board

[13.1 CONTROL Board](#)

[13.2 INTERFACE Board](#)

[13.3 DRIVE Board](#)

[13.4 CARRIAGE RELAY and CIS RELAY Boards](#)

[13.5 RELAY, SENSOR, and PANEL Boards](#)

[13.6 POWER Board](#)

13.1 CONTROL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐

[TOP](#) [PREVIOUS](#) [NEXT](#)

13.2 INTERFACE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐

☐

[TOP](#) [PREVIOUS](#) [NEXT](#)

13.3 DRIVE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

13.4 CARRIAGE RELAY and CIS RELAY Boards

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

13.5 RELAY, SENSOR, and PANEL Boards

[TOP](#) [PREVIOUS](#) [NEXT](#)



[TOP](#) [PREVIOUS](#) [NEXT](#)

13.6 POWER Board

[TOP](#) [PREVIOUS](#) [NEXT](#)




[TOP](#) [PREVIOUS](#) [NEXT](#)

14 PARTS LOCATION AND MECHANICAL PARTS LIST

[TOP](#) [PREVIOUS](#) [NEXT](#)

IMPORTANT SAFETY NOTICE

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Note: RTL (Retention Time Limited)

The mark (RTL) indicates that the Retention Time is limited for this item. After the discontinuations of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention. After the end of this period, the assembly will no longer be available.

Note: TSCA (Toxic Substance Control Act)

The marking (TSCA) in the Remark column indicates that the part shown in the column consist of the substances which are included in TSCA inventory.

Note: PbF (Pb Free)

PbF in the Remark column means Pb Free solder is used to assemble parts on the PCB assembly.

[14.1 Exterior](#)

[14.2 ADF \(Outer\)](#)

[14.3 ADF \(Inner\)](#)

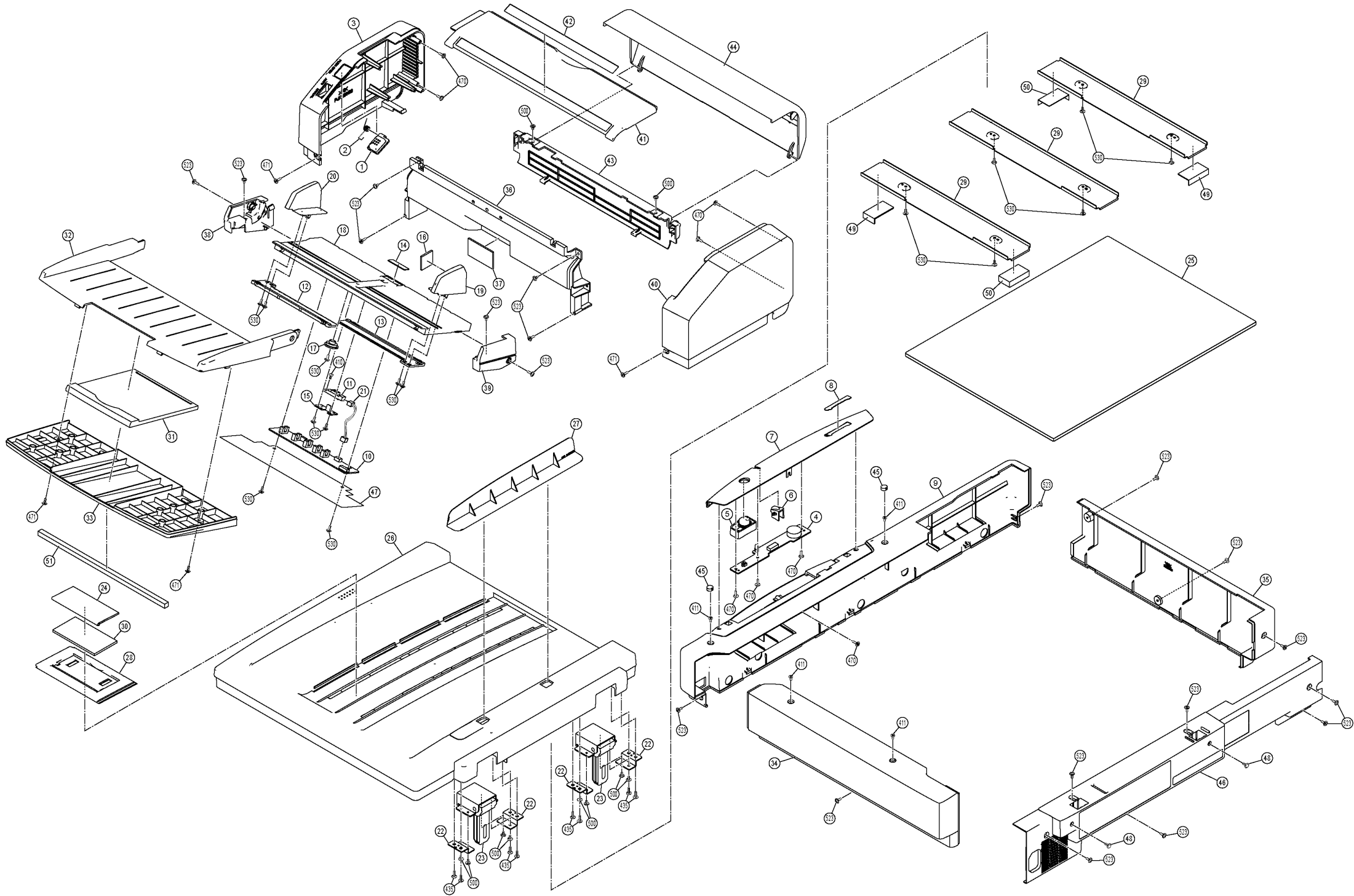
[14.4 Flatbed](#)

[14.5 Board Assembly & Power Unit](#)

[14.6 Packing](#)

[14.7 Tool](#)

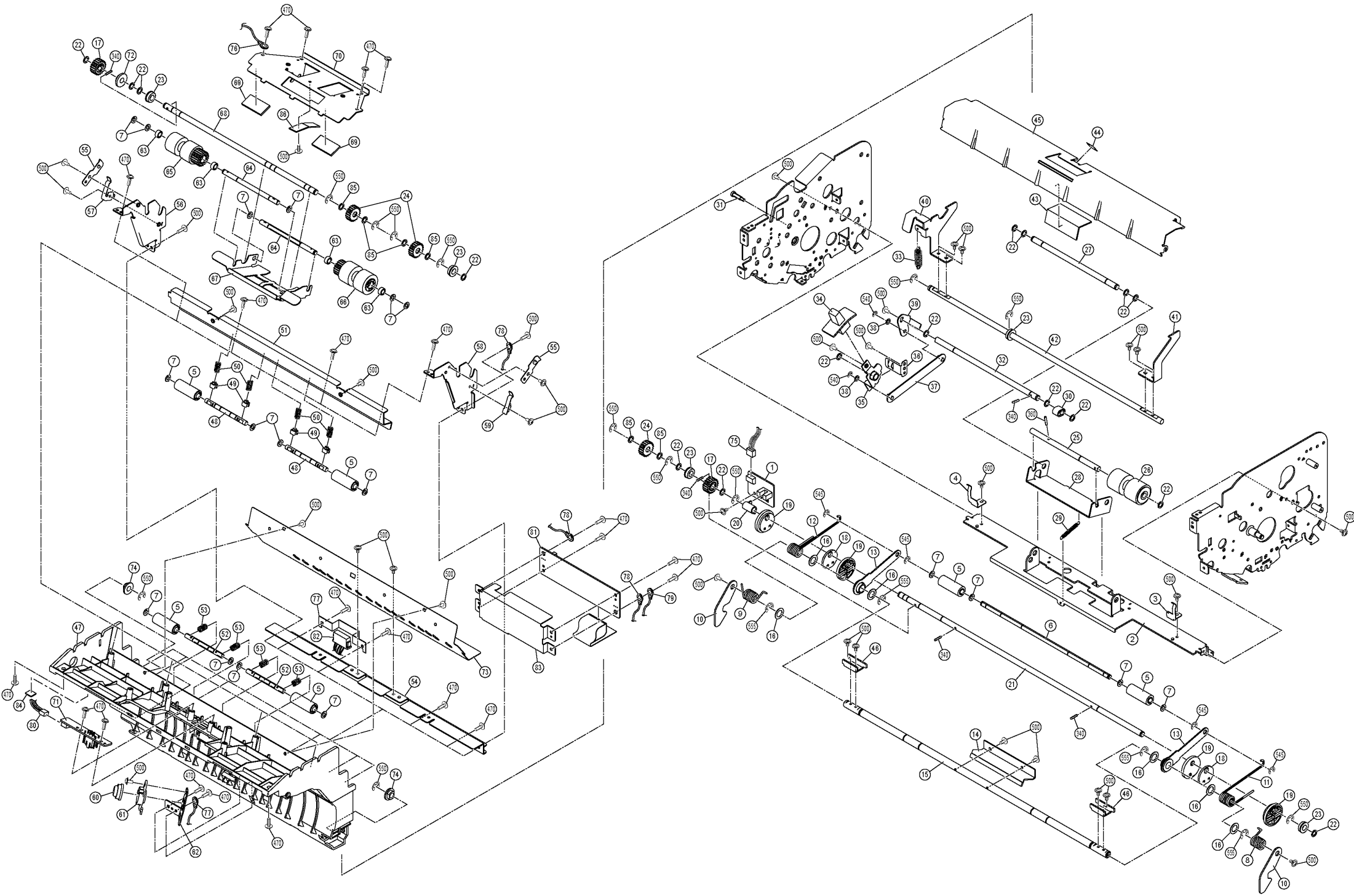
[TOP](#) [PREVIOUS](#) [NEXT](#)



2	PJ0SR0252	Spring	
3	PJKEB01032	ADF Cover (F)	ISO-PS
4	PPB72A2DF0A	PANEL Board	(RTL) P&F
5	PJBCB00072	START/STOP Button	ISO-PS
6	PJKEB00042	LED Cover	ISO-ABS
7	PJGPR00102	FB Front Panel	ISO-PS
8	PBBS0R	Batch	
9	PJKEB01042	Front Cover	ISO-PS
10	PPB72A2DF0S	SIZE DETECTOR Board	(RTL) P&F
11	GPDA3	Photo Interrupter (Paper Sensor)	
12	PRGDA00442	Document Guide Rack (L)	
13	PRGDA00452	Document Guide Rack (R)	
14	PRHEAD0402	Document Filing Pad 2	
15	PRMDA05732	Plate	
16	PRGA07422	Label	
17	PJDC001332.1	Pinion	
18	PJHRB00772	Hopper Plate	ISO-ABS
19	PJHRB06742	Document Guide B	ISO-ABS
20	PJHRB06752	Document Guide F	ISO-ABS
21	PJHRB10232	Cable	
22	PJMEAD0802	Hinge Bracket	
23	PJNEA0117W	Hinge	
24	PRHR041902	Exit Sub Stopper	
25	PJHEB00902	Pushed Sheet	
26	PJHRB06002	Document Cover	ISO-PS
27	PJHRB06092	Back Stopper	ISO-PS
28	PJHRB06702	Exit Stopper Base	ISO-ABS
29	PJKEB02092	FB Standard Sheet Plate	
30	PJHEC00112	Stopper Pad	
31	PRMDA00402	Hopper Extension Tray	
32	PJHRB06052	Hopper Tray (Upper)	ISO-ABS
33	PJHRB06062	Hopper Tray (Lower)	ISO-ABS
34	PJKEB00992	Side Cover (R)	ISO-PS
35	PJKEB01002	Side Cover (L)	ISO-PS
36	PJKEB01092	Hopper Base	ISO-PS
37	PRGA000302	PULL OPEN Label	
38	PJHRB06012	Hopper Front Cover	ISO-PS
39	PJHRB06032	Hopper Back Cover	ISO-PS
40	PJKEB01022	ADF Cover	ISO-PS
41	PJKEB01052	Top Cover	ISO-PS
42	PJGFC00022	Paper Size Label	
43	PJKEB01062	ADF Side Cover	ISO-PS
44	PJKEB01072	Impriater Door	ISO-PS
45	PJGFC00012	Screw Cap	ISO-ABS
46	PJKEB01012	Back Cover	ISO-PS
47	PJMKC00012	Hopper Sheet	
48	NRP-480	Rivet	
49	PJHEC00202	Sheet Guide A	
50	PJHEC00202	Sheet Guide B	
51	PJHEC00112	Hopper Rubber	
510	XTB34FFFX	Screw	
611	XTB34FFFY	Screw	
642	XTN214GFX	Screw	
650	XTW3140FFX	Screw	
671	XTW31410FFY	Screw	
680	XTW3140LFX	Screw	
682	XTW3140LFY	Screw	
686	XTW3140RFX	Screw	

14.2 ADF (Outer)

[TOP](#) [PREVIOUS](#) [NEXT](#)



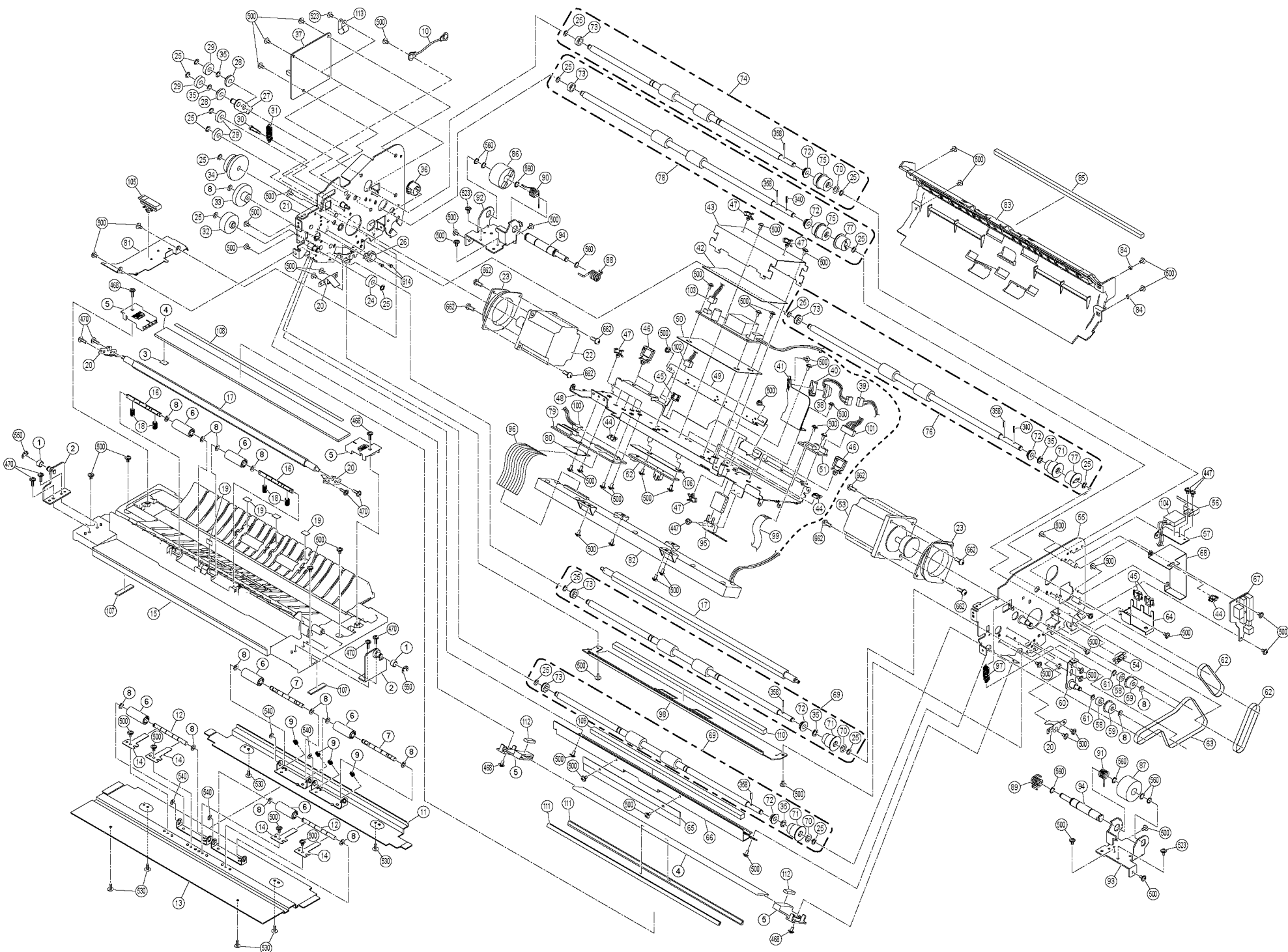
REPLACEMENT MECHANICAL PARTS LIST (ADF (Outer))

Ref. No.	Part No.	Part Name & Description	Remarks
1	PP8723ADPIS	HOPPER HOME DETECTOR BOARD	(RTLU P/F)

4	PJUSB008Z	Release Plate 2	
5	PJUSB0128Z	Retard Cover Hold Spring B	
6	PJUSB0129Z	Retard Cover Hold Spring F	
7	PBDA0006Z	Free Roller	ISO: PCM
8	PJDFB0168Z	Hopper Press Shaft	
9	PJN04111Z	Spacer	ISO: PA
10	PBDSA0127Z	Lever Spring	
11	PBDSA0128Z	Lever Spring	
12	PBLA0181Z	Lock Lever	
13	PJDBB018Z	Hopper Spring B	
14	PJDBB018Z	Hopper Spring F	
15	PJMEB0077Z	Hopper Press Plate Ass y	
16	PJJB0002Z	Rock Release Plate	
17	PJJC0002Z	Inner Cover Fulcrum Shaft	
18	RWPS8-050	Polyaxlider	
19	PBDA00036Z	Retard Gear	ISO: PCM
20	PBDA00046Z	Hopper Cam	ISO: PCM
21	PBDA00056Z	Hopper Cam Forge	ISO: PCM
22	PBHR00023Z	Hopper Cam Shutter	ISO: ABS
23	PJDFB0170Z	Hopper Cam Shaft	
24	PJNV025Z	Spacer	ISO: PA
25	B-F6-171	Bearing	
26	PBDA0013Z	Paper Feed Gear	
27	PJDFB0175Z	Retard Shaft	
28	PJDR0006Z	Retard Roller	
29	PJDFB0171Z	Retard Support Shaft	
30	PJMEB0081Z	Retard Plate	
31	PJDBB0220Z	Retard Spring	
32	PBDA00046Z	Hopper Power/L Cam	
33	PBDA0001Z	Screw	
34	PJDFB0174ZA	Link Shaft	
35	PJDBB0162Z	Tension Spring	
36	PBBSA002Z	Retard Cancel Lever	
37	PJMEB0086Z	Retard Release Plate Ass y	
38	PBLDA0046Z	Retard Change Spring	
39	PJMEB0053Z	LNK plate 2-Ass y	
40	RWPS4-050	Spacer	
41	PJMEB0062Z	LNK Plate 1	
42	PJMEB0065Z	Outer Cover Lever F	
43	PJMEB0066Z	Outer Cover Lever B	
44	PJJC0003Z	Outer Cover Shaft	
45	PJLJ0004Z	Retard Metal Sheet	
46	PJHEC001GZ	Reflect Sheet 2	ISO: PC
47	PJMEB0073Z	Retard Cover 1-Ass y	
48	PBLA0147Z	Lock Stopper	
49	PJJIAB038Z-J	Outer Conveyor Ass y	ISO: ABS
50	PJDFB0164Z	Free Roller Shaft 1	
51	PJLJ4016Z	Roller Bear	ISO: PCM
52	PJDBB0217Z	Free Roller Spring 1	
53	PJLJ.B0023Z	Free Roller Pressure Stay	
54	PJDFB0165Z	Free Roller Shaft 2	
55	PBDA0008Y	Free Roller Spring	
56	PJLJ.B0027Z	Support Plate	
57	PBLDA0047Z	Impprinter Steel Lock Spring	
58	PJACB0026Z	Impprinter Stay F	
59	PJJSB0066Z	Impprinter Lock Spring	
60	PJMCB0207Z	Impprinter Stay B	
61	PJJSB0100Z	Impprinter Lock Spring	
62	LZF.A0000005	SENSOR Unit (Double Feed Detector)	
63	PJHFB001Z	Double Feed Spacer	ISO: ABS
64	PJMCB0273Z	Double Feed Stay 2	
65	B-55-41	Roller Bear	
66	PJDFB0168Z	Roller Shaft	
67	PJDRB0067Z	Feed Roller	
68	PJDRB0101Z	Separation Roller	
69	PJMB0006Z	Roller Holder	
70	PJDFB0172Z	Roller Drive Shaft	
71	PJHEB0106Z	Roller Holder Hold Magnet	
72	PJMCB0312Z	Roller Drive Shaft Stay	
73	PP9723ADF050	WAITING SENSOR Board	(RTL) PMP
74	PJHFB0035Z	Paper Feed Pick Roller	ISO: PCM
75	PJLJ.B0024Z	Impprinter Steel Sheet	
76	B-F6-270	Bearing	
77	PJJB01004Z	Cable	
78	PJITB0041Z	Grand Cable	
79	PJACC0016Z	Connector Small Cover	
80	PJITB0042Z	Grand Cable	
81	PJITB004Z	Grand Cable	
82	PJJB0101Z	Cable	
83	PP9723ADF09F	OUTER CONVEYOR RELAY Board	(RTL) PMP
84	PJJB01014Z	Cable	
85	PJMCB0100Z	Outer Shield Plate	
86	PJGFC0004Z	Roller Exchange Label	
87	RWPS8-025	Spacer	
88	PJLJ.C0017Z	Spring	
89	XPJ2C19VW	Pin	
90	XPJ2B120VW	Pin	
91	XTW3-UI0PFX	Screw	
92	XTW3-U0LFX	Screw	
93	XUC3FY	E-ring	
94	XUC4FY	E-ring	
95	XUC3FY	E-ring	
96	XUC3FY	E-ring	

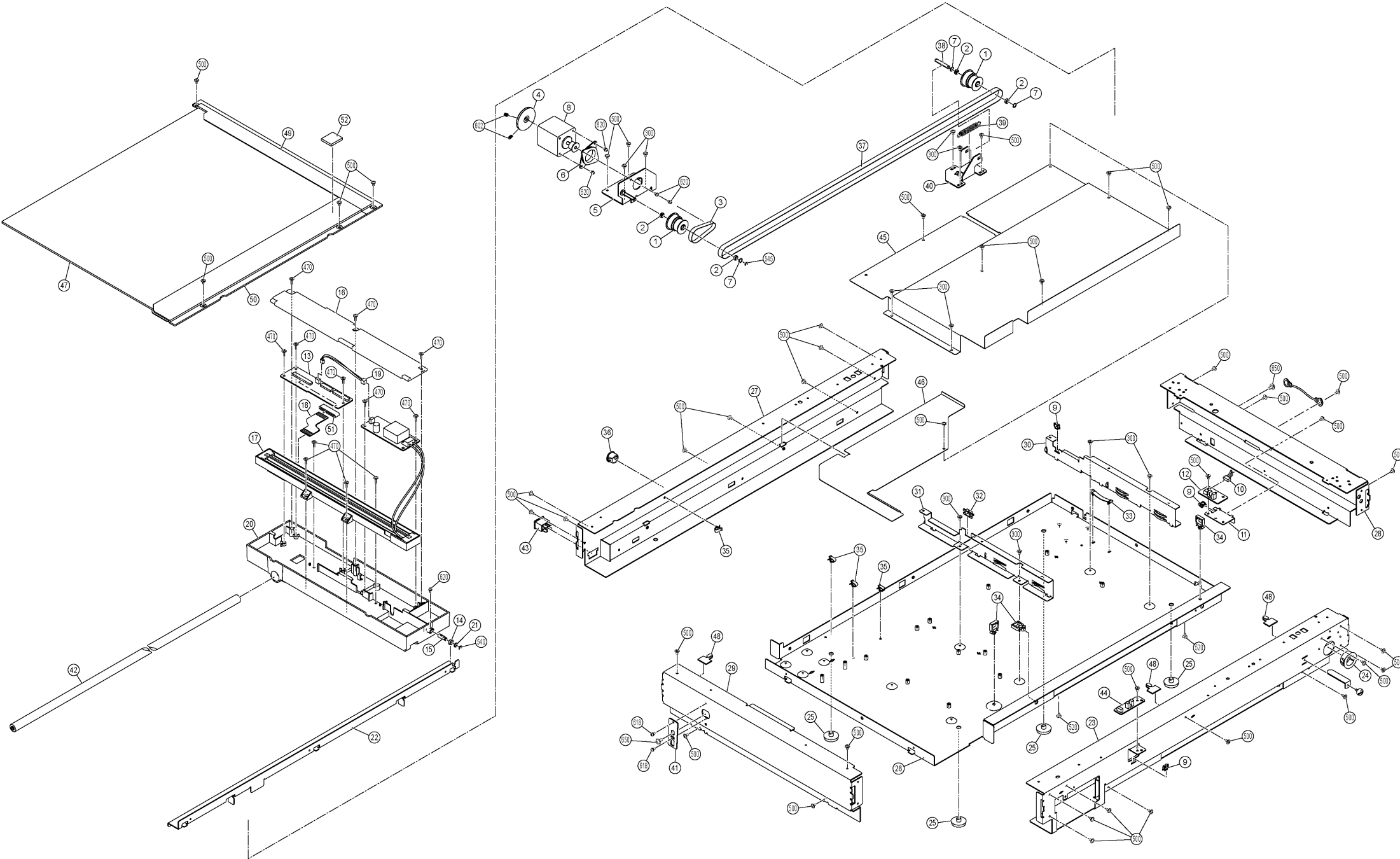
14.3 ADF (Inner)

[TOP](#) [PREVIOUS](#) [NEXT](#)



Ref. No.	Part No.	Part Name & Description	Remarks
1	PJDFC086Z	Ring	
2	PJMEB0075Z	Inner Cover Lock Plate	
3	PJHEB0094Z	ADF Whiter Standard Sheet	
4	PJHEB100Z	ADF Glass	
5	PJHRB0681Z	ADF Glass Attachment	
6	PBORA0028Z	Free Roller	ISO: POM
7	PJDFB0167Z	FB Free Roller Shaft	
8	PJNW4111Z	Spacer	ISO: PA
9	PJDSB0226Z	FB Free Roller Spring	
10	PJITB0045Z	Grand Cable	
11	PJULB0033Z	Conveyor Reinforce Plate 1	
12	PJDFB0177Z	FB Free Roller Shaft 2	
13	PJULB0034Z	Conveyor Reinforce Plate 2	
14	PJUSB0121Z	FB Free Roller Leaf Spring	
15	PJHRB0668Z	FB Conveyor	ISO: ABS
16	PJDFB0166Z	FB Exit Free Roller Shaft	
17	PJDFB0178Z	Reference Plate	
18	PBDSA0036Y	Free Roller Spring	
19	PJHEC0005Z	Reflector Sheet	
20	PJUSB0125Z	Reference Plate Pressure Spring	
21	PJUAB0045Z	Main Chassis L-Ass y	
22	L6HKJGC003	Motor (Paper Feed)	
23	PBHEZ8Z	Damper	
24	PBDA0013Z	Paper Feed Gear	
25	PJNW505Z	Spacer	ISO: PA
26	NF-558E	Oil Damper	
27	PJMEB0098Z	Feed Planet Plate	
28	PJHRB0030Z	Paper Feed Pitch Roller	ISO: POM
29	PBDA0018Z	Gear	ISO: POM
30	PBDA0001Z	Screw	
31	PJDSB0225Z	Planet Spring	
32	PBDA0030Z	Idler Gear-18D	
33	PBDA0033Y	Slow Shift Gear	
34	PBDA0028Z	Intermediate Gear	
35	RWPS6-100	Spacer	
36	TB-1116	Bush	
37	PPB723ADF05K	SENSOR RELAY Board	(RTL) PSF
38	L2FA0000005	SENSOR Unit (Double Feed Detector)	
39	PJURB1016Z	Cable	
40	PJHRB0673Z	Double Feed Spacer	
41	PJMDB0272Z	Sensor Clamp Plate	
42	PJHXB0014Z	Inverter Sheet (Upper)	ISO: PPE
43	PJMCB0097Z	Inverter Shield Plate	
44	EDS-0607U	Edge Saddle	
45	EDS-1	Edge Saddle	
46	LWS-1S	Locking Wire Saddle	
47	YMC10-G-V0	Clamp	
48	PJULB0029Z	Reinforce Plate 1	
49	PPB723ADF05N	STARTING SENSOR Board	(RTL) PSF
50	PJHXB0015Z	Inverter Sheet (Lower)	ISO: PPE
51	PPB723ADF05M	HOPPER RELAY Board	(RTL) PSF
52	PPB723ADF05H	ENDING SENSOR Board	(RTL) PSF
53	L6HKJGD0002	Motor (Conveyor)	
54	EDS-2	Edge Saddle	
55	PJUAB0047Z	Main Chassis R	
56	K0KACF0006Z	Switch	
57	PJMCB0296Z	Switch Plate	
58	F-W65Z21-1K	Bearing	
59	PJHRB0032Z	Tension Roller	ISO: POM
60	PJMEB0092Z	Tension Plate Ass y	
61	RWPS5-050	Spacer	
62	B6053M1505B	Belt (Drive Belt 1, Drive Belt 2)	
63	B6053M13345B	Belt (Drive Belt 3)	
64	PJMCB0282Z	Cable Plate	
65	PBMEAD010Z	Discharge Brush	
66	PJUEB0027Z	End Conveyor	
67	PPB723ADF05C	POWER RELAY Board	(RTL) PSF
68	PJMCB0108Z	POWER RELAY Shield Plate	
69	PJCRB99Z-J2	Drive Roller 4 Ass y	
70	PJNW6102A	Spacer	
71	PBDA0058Z	Drive Pulley Gear	
72	THF-612Z24.5	Bearing	
73	B-F6-171	Bearing	
74	PJCRB99Z-J1	Drive Roller 1 Ass y	
75	PBDA0059Z	Pulley Gear	
76	PJCRB100Z-J1	Drive Roller 3 Ass y	
77	PBDA0036Z	Drive Pulley	
78	PJCRB100Z-J2	Drive Roller 2 Ass y	
79	PPB723ADF03B	CIS RELAY Board	(RTL) PSF
80	PJHXB0016Z	CIS Relay PCB Sheet	
81	PJMCB0098Z	Shield Plate	
82	L2CC0000009	Sensor Unit (CIS and LAMP DRIVE Board)	
83	PJHRB0671Z	Conveyor 1	ISO: ABS
84	PJDEB0024Z	Collar	
85	PBHRAG150Z	Ink Absolution Felt	
86	DWH10-3.0NFW	OWH Hinge L	
87	DWH10-3.0NFW	OWH Hinge R	
88	PJDSB0213Z	Outer Cover Spring F	
89	PJDSB0214Z	Outer Cover Spring B	
90	PJDSB0221Z	Inner Cover Fulcrum Spring R	
91	PJDSB0222Z	Inner Cover Fulcrum Spring L	
92	PJMEB0096Z	Inner Cover Clamp Plate L	
93	PJMEB0070Z	Inner Cover Clamp Plate R	
94	PJUSB0006Z	Fulcrum Clamp Shaft	
95	K0KACF0009Z	Switch	
96	PJUEB3009Z	Cable	
97	PJDSB0227Z	Tension Spring	
98	PJUEB0026Z	Conveyor 2	
99	PJUEB3002Z	Cable	
100	PJURB1006Z	Cable	
101	PJURB1002Z	Cable	

102	PJRB100Z	Cable	
103	PJRB101Z	Cable	
104	PJRB102Z	Cable	
105	LFC-27W-T	Flat Cable Clamp	
106	PJRB002Z	End Sensor Sheet	
107	PJRB003Z	Shield Gasket	
108	PJREC0013Z	ADF Glass Sheet	ISO- PE
109	PJMCC0018Z	Dust Protect Sheet 2	ISO- SI
110	PJMCC0024Z	Dust Protect Sheet 4	ISO- SI
111	PJMCC0017Z	Dust Protect Sheet 1	
112	PJMCC0019Z	Dust Protect Sheet 3	ISO- SI
113	NK-6N	Clamp	
340	XPJ2C10VW	Pin	
358	XPL2B10VWV	Pin	
447	XTW23+10LFX	Screw	
458	XTW3+U10LFX	Screw	
470	XTW3+U10PFX	Screw	
500	XTW3+U8LFX	Screw	
523	XTW3+U8LFY	Screw	
530	XTW3+U8PFX	Screw	
540	XUC3FY	E-ring	
550	XUC6FY	E-ring	
560	XUC8FY	E-ring	
614	XYN2+J8FX	Screw	
654	XYN4+J12FXS	Screw	

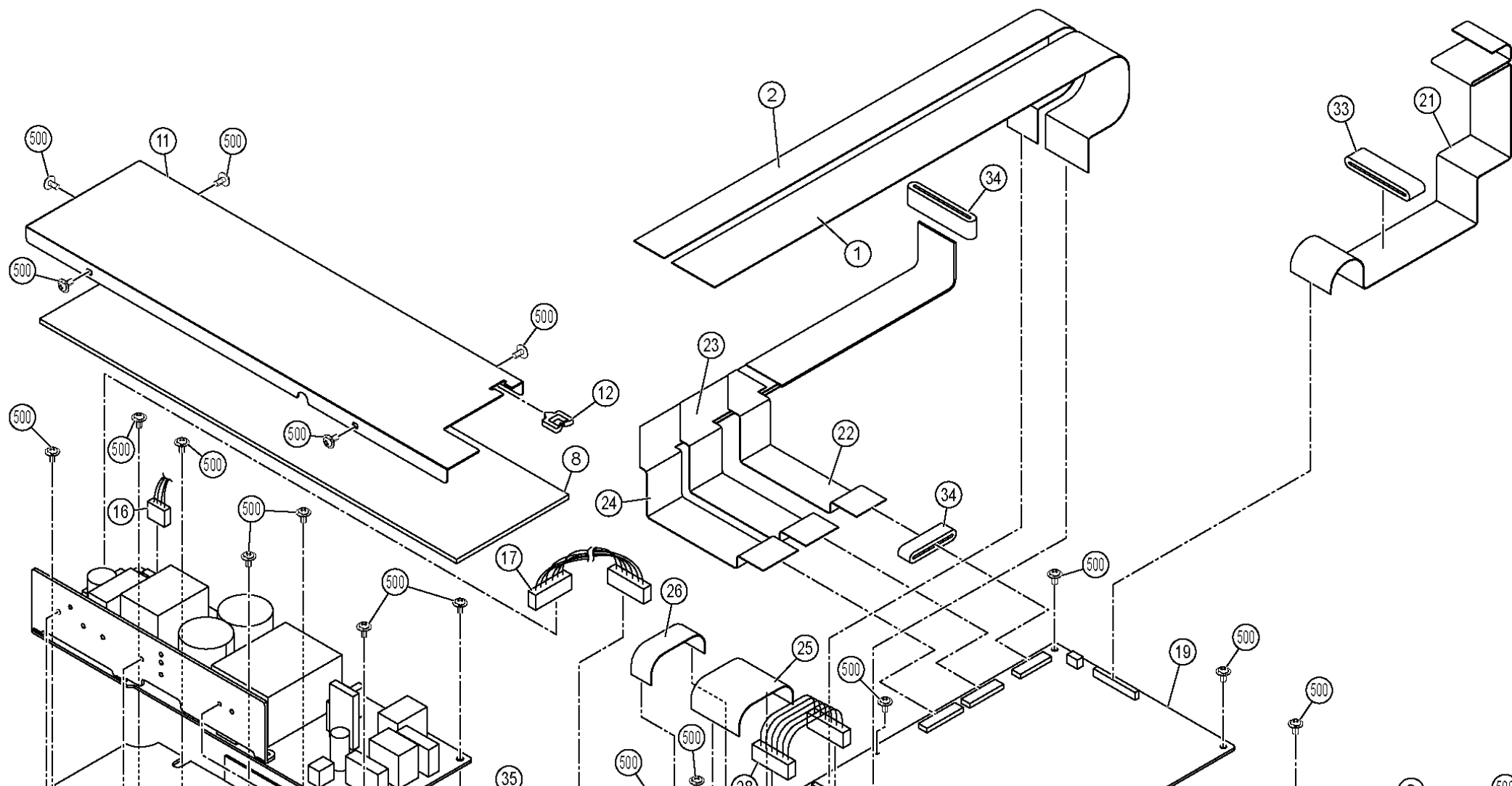


Ref. No.	Part No.	Part Name & Description	Remarks
1	7-0000000000	Carriage Pulley Gear	
2	000-000000	Ball Bearing	
3	136-5-1-55217	Carriage Motor Set 1	

1	DMV-412435	Charger	
1	PJAN600032	Motor Plate Ass y	
1	MF-461-142	Motor Mount	
2	HWPSG-005	Spacer	
1	14B9HJG00007	Motor (Carriage)	
1	1205-06074	Edge Saddle	
10	PLS0010122	Cable	
11	PJAN000042	Carriage Home sensor Plate	
10	PR0721A01006	CARDIAC HOME DETECTOR Board	(RTL) PUF
11	PR0721A01010	CARDIAC RELAY Board	(RTL) PUF
10	DDL-000201	Bearing	
10	PR0047002	Cable Roller Shaft	
10	PJAN000762	Motor Cover	(ISO) PS
11	LJCC00000009	Sever Unit CDS and LAMP DRIVE Board	
10	PLS0010122	Cable	
10	PLS0010122	Cable	
10	PJAN600012	CDS Carriage Base	(ISO) PFB-ADS
11	HWPSG-005	Spacer	
10	PJAN000032	Roll	
11	PJAN000042	FB Head Frame	
10	TS-1906	Bushing	
10	MF-3031	Plastic Foot	
10	PJAN000042	FB Bottom Frame	
11	PJAN000042	FB Front Frame	
10	PJAN000412	FB Side Frame L	
10	PJAN000422	FB Side Frame R	
10	PJAN000042	Board B&L	
11	PJAN000012	Board Red R	
10	E05-1	Edge Saddle	
11	FCS-3003	Flat Clamp	
10	UWS-35	Charger	
10	YKCS-0	Clamp	
10	TS-1116	Roller	
11	1544-301-0	Ball	
11	PJ07011762	Tension Pulley Shaft	
10	PJAN001762	Tension Spring	
10	PJAN000042	Tension Pulley Plate	
11	PJAN000042	Carriage Shaft Plate	
10	PJAN000042	Carriage Shaft	
11	K020000041	Switch	
10	PR0721A01000	DOCUMENT COVER DETECTOR Board	(RTL) PUF
10	PJAN000032	Strand Plate A	
10	PJAN000042	Strand Plate B	
11	PJAN000022-J	Flatbed Green Ass y	
10	K-1605	Clamp	
10	PJAN000042-J	FB Scale Plate D	(ISO) PS
10	PJAN000042-J	FB Scale Plate W	(ISO) PS
11	JXK000000005	Filter	
10	PR02AN0032	Label	
100	RTYD-0320C	Screw	
100	XYND-100FX	Screw	
100	XYND-100FX	Screw	
100	XYND-100FX	Screw	
100	KUC3FY	O-ring	
100	KUC4FY	O-ring	
100	XN0300F	Screw	
100	XYND-100FX	Screw	
100	XYND-100FX	Screw	
100	XYND-100FX	Screw	

14.5 Board Assembly& Power Unit

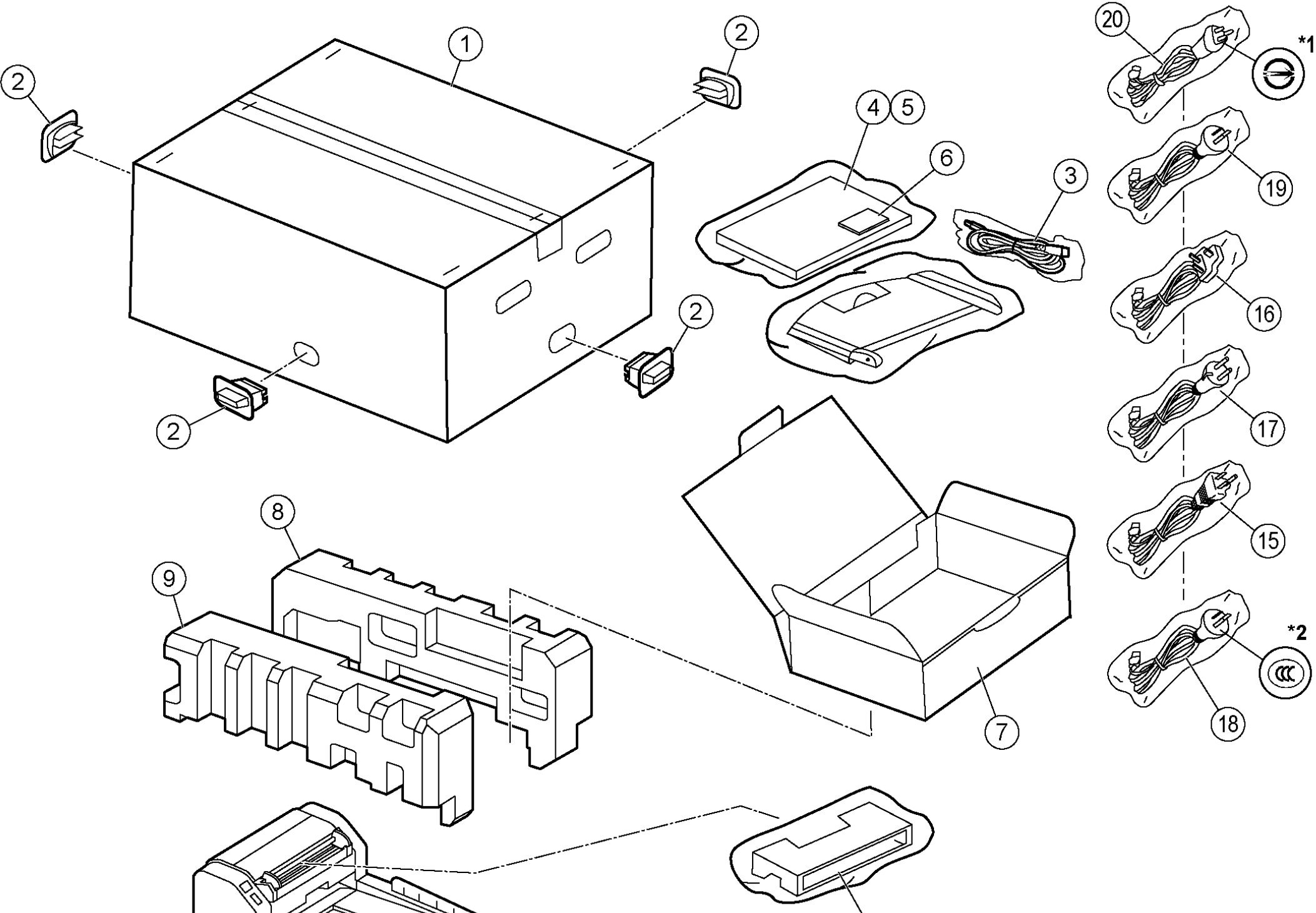
[TOP](#) [PREVIOUS](#) [NEXT](#)

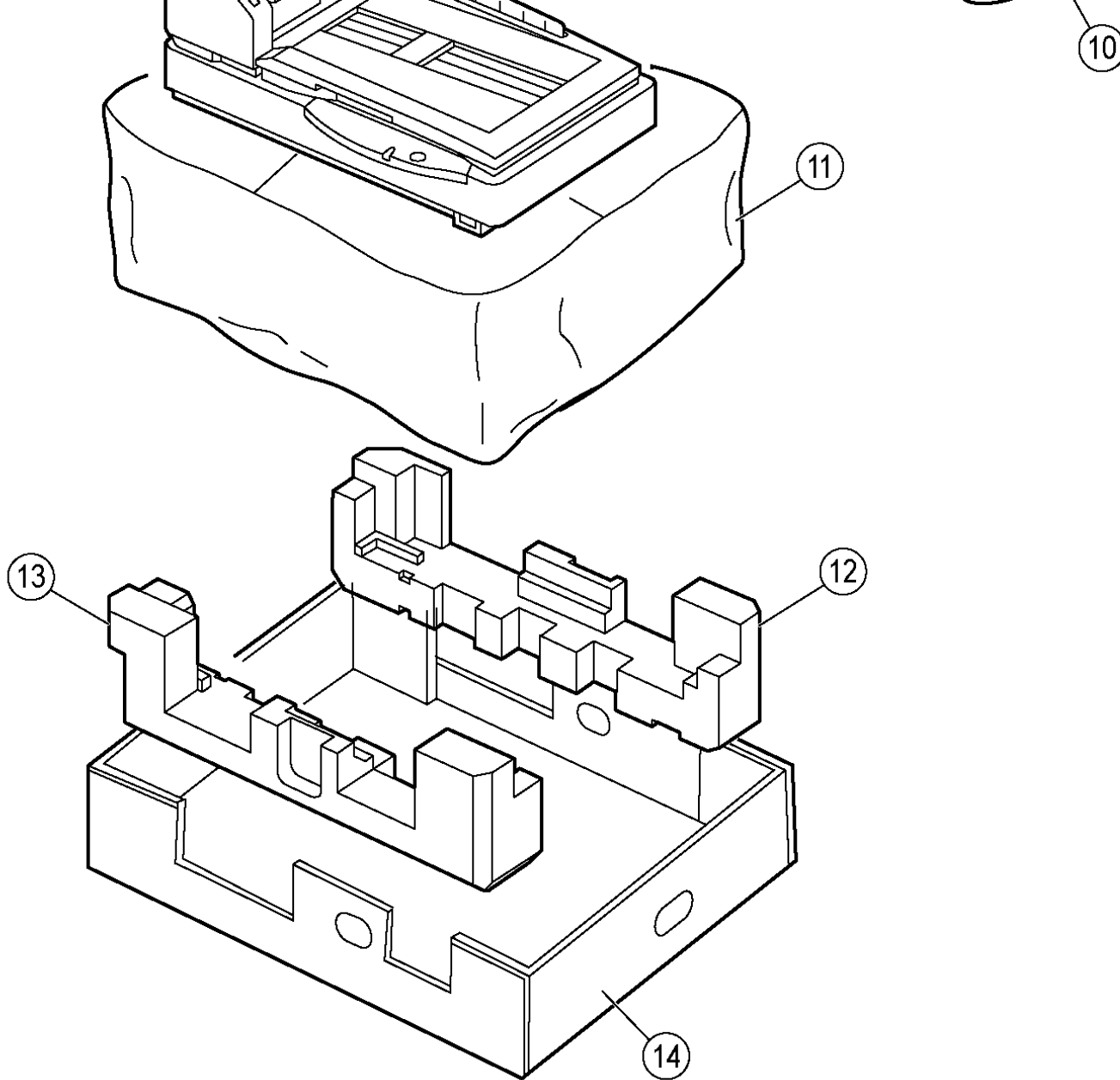


2	PJIEB3015Z	Cable	
3	PPB723CHS02	INTERFACE Board	(RTL) PbF
4	A-46-5	Handle	
5	PJMDB0269Z	IF Board Plate	
6	PPB723CHS06	POWER Board	(RTL) PbF
7	PJHXB0018Z	Power Sheet 1	ISO: PPE
8	PJHXC0002Z	Power Sheet 2	ISO: PPE
9	PJMCB0090Z	Power Board Box	
10	PJMCB0092Z	FAN Cover	
11	PJMCB0096Z	Power Board Box Cover	
12	EDS-0607M	Edge Saddle	
13	EDS-1208U	Edge Saddle	
14	LWS1SV0BK	Locking Wire Saddle	
15	PBJEA0090Z	FAN	
16	PJJRB0659Z	Cable	
17	PJJRB1018Z	Cable	
18	PJJRB1031Z	Inlet Cable	
19	PPB723CHS01	CONTROL Board	(RTL) PbF
20	PPB723CHS04	DRIVE Board	(RTL) PbF
21	PJIEB3001Z	Cable	
22	PJIEB3003Z	Cable	
23	PJIEB3004Z	Cable	
24	PJIEB3005Z	Cable	
25	PJIEB3006Z	Cable	
26	PJIEB3007Z	Cable	
27	PJJRB1007Z	Cable	
28	PJJRB1010Z	Cable	
29	PJJRB1011Z	Cable	
30	PJJRB1013Z	Cable	
31	PJJRB1032Z	Cable	
32	PBQAA0799Z	SCSI Label	
33	J0KD00000041	Core	
34	PJIN12Z	Core	
35	J0KG000000055	Core	
370	XSB26+4FX	Screw	
402	XSN3+6FX	Screw	
490	XTW3+U30LFX	Screw	
500	XTW3+U6LFX	Screw	
523	XTW3+U8LFY	Screw	
532	XTW3+U8SFX	Screw	
645	XYN4+F6FXS	Screw	
700	2-56UNCX1/4	Screw	

14.6 Packing

[TOP](#) [PREVIOUS](#) [NEXT](#)









Note:

*1 Certification Mark according to The Commodity Inspection Act in Taiwan

*2 AC cords for China have the certification mark according to REGULATIONS FOR CHINA COMPULSORY PRODUCT CERTIFICATION.

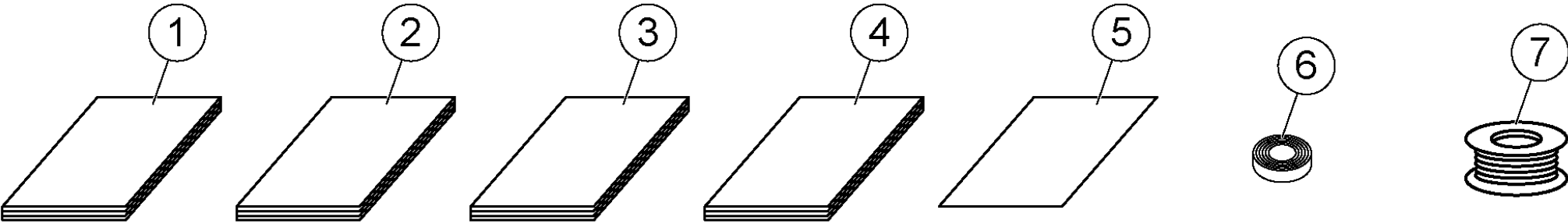
REPLACEMENT MECHANICAL PARTS LIST (Packing)

Ref. No.	Part No.	Part Name & Description	Remarks
1	PJPG0237Z	Outer Carton for KV-S7065C	
1	PJPG0237Z-U	Outer Carton for KV-S7065C-U	
1	PJPG0040Z	Outer Carton for KV-S7065CCN	
1	PJPG0237Z-A	Outer Carton for KV-S7065C-A	
1	PJPG0237Z-T	Outer Carton for KV-S7065C-T	

2	HP-601W2-R	Joint	ISO:PP
3	K1HB04CD0002	USB Cable	
4	PJQXB0063Z	Installation Manual for KV-S7065C/-A/-T	
4	PJQXB0064Z	Installation Manual for German	
4	PJQXB0065Z	Installation Manual for French	
4	PJQXB0066Z	Installation Manual for Spanish	
4	PJQXB0067Z	Installation Manual for Italian	
4	PJQXB0068Z	Installation Manual for Korean	
4	PJQXB0069Z	Installation Manual for Russian	
5	PJQMB0139Z	Maintenance Manual for KV-S7065C/-A/-T	
5	PJQMB0140Z	Maintenance Manual for German	
5	PJQMB0141Z	Maintenance Manual for French	
5	PJQMB0142Z	Maintenance Manual for Spanish	
5	PJQMB0143Z	Maintenance Manual for Italian	
5	PJQMB0144Z	Maintenance Manual for Korean	
5	PJQMB0145Z	Maintenance Manual for Russian	
6	PBHSA0055Z	Roller Cleaning Paper	
7	PJPKB0139Z	Accessory Box	
8	PJPNB0165Z	Cushion Top Back	ISO:PP
9	PJPNB0164Z	Cushion Top Front	ISO:PP
10	PJPNB0166Z	Feed Part Fixed Frame	
11	PBPPA0025Z	Cover	ISO:PE
12	PJPNB0163Z	Cushion Bottom Back	ISO:PP
13	PJPNB0162Z	Cushion Bottom Front	ISO:PP
14	PJPG0238Z	Bottom Carton	
15	K2CG3DH00032	Power Cord	 , Type A-2
16	K2CT3DH00014	Power Cord	 , Type BF
17	K2CN3DH00003	Power Cord	 , Type C-4
18	K2CK3DH00014	Power Cord for CHINA	
19	K2CK3DH00009	Power Cord for KV-S7065C-A	
20	K2CG3DH00044	Power Cord for TAIWAN	

14.7 Tool

[TOP](#) [PREVIOUS](#) [NEXT](#)



REPLACEMENT MECHANICAL PARTS LIST (Tool)


Ref. No.	Part No.	Part Name & Description	Remarks
1	PBQX90095Z-J	Test Chart A4 (10 Pieces)	
2	PJQXB0059Z-J	Shading Sheet (10 Pieces)	
3	PBQX90104Z-J	Test Chart A (10 Pieces)	
4	PBQX90105Z-J	Test Chart B (10 Pieces)	
5	N022-R	Test Chart (Color)	
6	T4E30725-2	Tape	
7	RMA02M705-08	Eco Solder	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15 REPLACEMENT PARTS LIST

[TOP](#) [PREVIOUS](#) [NEXT](#)

IMPORTANT SAFETY NOTICE

Components identified by  mark have special characteristics important for safety. When replacing any of these components, use only manufacturer's specified parts.

Note: RTL (Retention Time Limited)

The marking (RTL) in the Remark column indicates that the Retention Time is limited for this item. After the discontinuation of this assembly in production, the item will continue to be available for a specific period of time. The retention period of availability is dependent on the type of assembly, and in accordance with the laws governing part and product retention.

After the end of this period, the assembly will no longer be available.

Abbreviation of Part Name and Description

1. Resister

Example:

ERJ6GEYJ472 4.7k, J, 1/10W
ALLOWANCE

ALLOWANCE	
F	±1%
G	±2%
J	±5%
K	±10%
M	±20%

2. Capacitor

Example:

ECUX1H104ZFX

0.1, Z,

50V

ALLOWANCE

ALLOWANCE	
C	±0.25pF
D	±0.5pF
F	±1pF
J	±5%
K	±10%
L	±15%
M	±20%
P	+100%, -0%
Z	+80%, -20%

15.1 CONTROL Board

15.2 INTERFACE Board

15.3 DRIVE Board

15.4 CARRIAGE RELAY Board

15.5 CIS RELAY Board

15.6 OUTER CONVEYOR RELAY Board

15.7 WAITING SENSOR Board

15.8 ENDING SENSOR Board

15.9 HOPPER HOME DETECTOR Board

15.10 SIZE DETECTOR Board

15.11 STARTING SENSOR Board

15.12 HOPPER RELAY Board

15.13 SENSOR RELAY Board

[15.14 POWER RELAY Board](#)

[15.15 PANEL Board](#)

[15.16 DOCUMENT COVER DETECTOR Board](#)

[15.17 CARRIAGE HOME DETECTOR Board](#)

[15.18 POWER Board](#)

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.1 CONTROL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R1000	ERJ3GEYJ103	10K / J / 1/10W	
R1001	ERJ3GEYJ103	10K / J / 1/10W	
R1002	ERJ3GEYJ103	10K / J / 1/10W	
R1003	ERJ3GEYJ103	10K / J / 1/10W	
R1004	ERJ3GEYJ220	22 / J / 1/10W	
R1005	ERJ3GEYJ220	22 / J / 1/10W	
R1006	ERJ3GEYJ220	22 / J / 1/10W	
R1007	ERJ3GEYJ220	22 / J / 1/10W	
R1008	ERJ3GEYJ220	22 / J / 1/10W	
R1009	ERJ3GEY0R00	0-ohm Jumper	
R1010	ERJ3GEY0R00	0-ohm Jumper	
R1011	ERJ3GEY0R00	0-ohm Jumper	
R1012	ERJ3GEYJ220	22 / J / 1/10W	
R1013	ERJ3GEY0R00	0-ohm Jumper	
R1014	ERJ3GEY0R00	0-ohm Jumper	
R1015	ERJ3GEY0R00	0-ohm Jumper	
R1016	ERJ3GEY0R00	0-ohm Jumper	
R1017	ERJ3GEY0R00	0-ohm Jumper	
R1018	ERJ3GEY0R00	0-ohm Jumper	
R1019	ERJ3GEY0R00	0-ohm Jumper	
R1020	ERJ3GEYJ220	22 / J / 1/10W	
R1021	ERJ3GEY0R00	0-ohm Jumper	
R1022	ERJ3GEY0R00	0-ohm Jumper	
R1023	ERJ3GEYJ472	4.7K / J / 1/10W	
R1024	ERJ3GEYJ472	4.7K / J / 1/10W	
R1025	ERJ3GEYJ472	4.7K / J / 1/10W	
R1026	ERJ3GEYJ472	4.7K / J / 1/10W	
R1027	ERJ3GEYJ472	4.7K / J / 1/10W	
R1028	ERJ3GEYJ472	4.7K / J / 1/10W	
R1029	ERJ3GEYJ472	4.7K / J / 1/10W	
R1030	ERJ3GEYJ472	4.7K / J / 1/10W	
R1031	ERJ3GEYJ471	470 / J / 1/10W	

R1032	ERJ3GEYJ472	4.7K / J / 1/10W	
R1033	ERJ3GEYJ472	4.7K / J / 1/10W	
R1034	ERJ3GEYJ472	4.7K / J / 1/10W	
R1035	ERJ3GEYJ472	4.7K / J / 1/10W	
R1036	ERJ3GEYJ472	4.7K / J / 1/10W	
R1037	ERJ3GEYJ472	4.7K / J / 1/10W	
R1038	ERJ3GEYJ472	4.7K / J / 1/10W	
R1039	ERJ3GEYJ472	4.7K / J / 1/10W	
R1040	ERJ3GEYJ471	470 / J / 1/10W	
R1041	ERJ3GEYJ471	470 / J / 1/10W	
R1042	ERJ3GEYJ471	470 / J / 1/10W	
R1043	ERJ3GEY0R00	0-ohm Jumper	
R1044	ERJ3GEY0R00	0-ohm Jumper	
R1046	ERJ3GEY0R00	0-ohm Jumper	
R1047	ERJ3GEY0R00	0-ohm Jumper	
R1049	ERJ3GEY0R00	0-ohm Jumper	
R1050	ERJ3GEY0R00	0-ohm Jumper	
R1051	ERJ3GEYJ470	47 / J / 1/10W	
R1052	ERJ3GEYJ470	47 / J / 1/10W	
R1053	ERJ3GEYJ470	47 / J / 1/10W	
R1054	ERJ3GEYJ470	47 / J / 1/10W	
R1055	ERJ3GEYJ472	4.7K / J / 1/10W	
R1056	ERJ3GEYJ472	4.7K / J / 1/10W	
R1057	ERJ3GEYJ472	4.7K / J / 1/10W	
R1058	ERJ3GEYJ472	4.7K / J / 1/10W	
R1059	ERJ3GEYJ472	4.7K / J / 1/10W	
R1060	ERJ3GEYJ472	4.7K / J / 1/10W	
R1061	ERJ3GEYJ472	4.7K / J / 1/10W	
R1062	ERJ3GEYJ472	4.7K / J / 1/10W	
R1063	ERJ3GEYJ471	470 / J / 1/10W	
R1064	ERJ3GEYJ472	4.7K / J / 1/10W	
R1065	ERJ3GEYJ472	4.7K / J / 1/10W	
R1066	ERJ3GEYJ472	4.7K / J / 1/10W	
R1067	ERJ3GEYJ472	4.7K / J / 1/10W	
R1068	ERJ3GEYJ472	4.7K / J / 1/10W	
R1069	ERJ3GEYJ472	4.7K / J / 1/10W	
R1070	ERJ3GEYJ472	4.7K / J / 1/10W	
R1071	ERJ3GEYJ472	4.7K / J / 1/10W	
R1072	ERJ3GEYJ471	470 / J / 1/10W	

R1073	ERJ3GEYJ471	470 / J / 1/10W	
R1074	ERJ3GEYJ471	470 / J / 1/10W	
R1075	ERJ3GEY0R00	0-ohm Jumper	
R1076	ERJ3GEY0R00	0-ohm Jumper	
R1078	ERJ3GEY0R00	0-ohm Jumper	
R1079	ERJ3GEY0R00	0-ohm Jumper	
R1080	ERJ3GEYJ472	4.7K / J / 1/10W	
R1081	ERJ3GEY0R00	0-ohm Jumper	
R1082	ERJ3GEY0R00	0-ohm Jumper	
R1083	ERJ3GEYJ470	47 / J / 1/10W	
R1084	ERJ3GEYJ470	47 / J / 1/10W	
R1085	ERJ3GEYJ470	47 / J / 1/10W	
R1086	ERJ3GEYJ470	47 / J / 1/10W	
R1087	ERJ3GEYJ473	47K / J / 1/10W	
R1088	ERJ3GEYJ473	47K / J / 1/10W	
R1089	ERJ3GEYJ473	47K / J / 1/10W	
R1090	ERJ3GEYJ473	47K / J / 1/10W	
R1091	ERJ3GEYJ473	47K / J / 1/10W	
R1092	ERJ3GEYJ473	47K / J / 1/10W	
R1093	ERJ3GEYJ334	330K / J / 1/10W	
R1094	ERJ3GEYJ473	47K / J / 1/10W	
R1095	ERJ3GEYJ473	47K / J / 1/10W	
R1096	ERJ3GEYJ473	47K / J / 1/10W	
R1097	ERJ3GEYJ473	47K / J / 1/10W	
R1098	ERJ3GEYJ473	47K / J / 1/10W	
R1099	ERJ3GEYJ334	330K / J / 1/10W	
R1100	ERJ3GEYJ334	330K / J / 1/10W	
R1101	ERJ3GEYJ334	330K / J / 1/10W	
R1102	ERJ3GEYJ334	330K / J / 1/10W	
R1103	ERJ3GEYJ473	47K / J / 1/10W	
R1104	ERJ3GEYJ473	47K / J / 1/10W	
R1105	ERJ3GEYJ473	47K / J / 1/10W	
R1106	ERJ3GEYJ473	47K / J / 1/10W	
R1107	ERJ3GEYJ334	330K / J / 1/10W	
R1108	ERJ3GEYJ224	220K / J / 1/10W	
R1109	ERJ3GEYJ334	330K / J / 1/10W	
R1110	ERJ3GEYJ334	330K / J / 1/10W	
R1111	ERJ3GEYJ473	47K / J / 1/10W	
R1112	ERJ3GEYJ473	47K / J / 1/10W	

R1113	ERJ3GEYJ224	220K / J / 1/10W	
R1114	ERJ3GEYJ334	330K / J / 1/10W	
R1115	ERJ3GEYJ224	220K / J / 1/10W	
R1116	ERJ3GEYJ334	330K / J / 1/10W	
R1117	ERJ3GEYJ224	220K / J / 1/10W	
R1118	ERJ3GEYJ334	330K / J / 1/10W	
R1119	ERJ3GEYJ332	3.3K / J / 1/10W	
R1120	ERJ3GEYJ332	3.3K / J / 1/10W	
R1121	ERJ3GEYJ332	3.3K / J / 1/10W	
R1122	ERJ3GEYJ332	3.3K / J / 1/10W	
R1123	ERJ3GEYJ332	3.3K / J / 1/10W	
R1124	ERJ3GEYJ332	3.3K / J / 1/10W	
R1125	ERJ3GEYJ332	3.3K / J / 1/10W	
R1126	ERJ3GEYJ332	3.3K / J / 1/10W	
R1127	ERJ3GEYJ332	3.3K / J / 1/10W	
R1128	ERJ3GEYJ332	3.3K / J / 1/10W	
R1129	ERJ3GEYJ332	3.3K / J / 1/10W	
R1130	ERJ3GEYJ332	3.3K / J / 1/10W	
R1131	ERJ3GEYJ332	3.3K / J / 1/10W	
R1132	ERJ3GEYJ332	3.3K / J / 1/10W	
R1133	ERJ3GEYJ332	3.3K / J / 1/10W	
R1134	ERJ3GEYJ332	3.3K / J / 1/10W	
R1143	ERJ3GEYJ220	22 / J / 1/10W	
R1144	ERJ3GEYJ220	22 / J / 1/10W	
R1145	ERJ3GEY0R00	0-ohm Jumper	
R1147	ERJ3GEYJ103	10K / J / 1/10W	
R1148	ERJ3GEYJ103	10K / J / 1/10W	
R1149	ERJ3GEYJ103	10K / J / 1/10W	
R1150	ERJ3GEYJ473	47K / J / 1/10W	
R1151	ERJ3GEYJ103	10K / J / 1/10W	
R1152	ERJ3GEYJ103	10K / J / 1/10W	
R1153	ERJ3GEYJ103	10K / J / 1/10W	
R1154	ERJ3GEY0R00	0-ohm Jumper	
R1155	ERJ3GEYJ394	390K / J / 1/10W	
R1156	ERJ3GEYJ184	180K / J / 1/10W	
R1157	ERJ3GEYJ222	2.2K / J / 1/10W	
R1158	ERJ3GEY0R00	0-ohm Jumper	
R1159	ERJ3GEYJ103	10K / J / 1/10W	
R1162	ERJ3GEYJ201	200 / J / 1/10W	

R1163	ERJ3GEYJ220	22 / J / 1/10W	
R1164	ERJ3GEYJ103	10K / J / 1/10W	
R1165	ERJ3GEYJ103	10K / J / 1/10W	
R1166	ERJ3GEY0R00	0-ohm Jumper	
R1168	ERJ3GEYJ103	10K / J / 1/10W	
R1170	ERJ3GEYJ103	10K / J / 1/10W	
R1171	ERJ3GEYJ220	22 / J / 1/10W	
R1173	ERJ3GEYJ103	10K / J / 1/10W	
R1174	ERJ3GEYJ103	10K / J / 1/10W	
R1175	ERJ3GEYJ103	10K / J / 1/10W	
R1176	ERJ3GEYJ103	10K / J / 1/10W	
R1177	ERJ3GEYJ103	10K / J / 1/10W	
R1178	ERJ3GEYJ103	10K / J / 1/10W	
R1180	ERJ3GEYJ472	4.7K / J / 1/10W	
R1181	ERJ3GEYJ103	10K / J / 1/10W	
R1182	ERJ3GEYJ272	2.7K / J / 1/10W	
R1183	ERJ3GEYJ472	4.7K / J / 1/10W	
R1184	ERJ3GEYJ472	4.7K / J / 1/10W	
R1185	ERJ3GEYJ472	4.7K / J / 1/10W	
R1186	ERJ3GEYJ472	4.7K / J / 1/10W	
R1188	ERJ3GEYJ472	4.7K / J / 1/10W	
R1189	ERJ3GEYJ472	4.7K / J / 1/10W	
R1190	ERJ3GEYJ472	4.7K / J / 1/10W	
R1191	ERJ3GEYJ220	22 / J / 1/10W	
R1192	ERJ3GEYJ220	22 / J / 1/10W	
R1193	ERJ3GEYJ220	22 / J / 1/10W	
R1194	ERJ3GEYJ223	22 / J / 1/10W	
R1195	ERJ12YJ222	2.2K / J / 1/2W	
R1196	D4FB1R100005	Poly Switch	
R1197	D4FB1R100005	Poly Switch	
R1201	D4FB1R100005	Poly Switch	
R1202	ERJ3GEYJ473	47K / J / 1/10W	
R1203	ERJ3GEYJ103	10K / J / 1/10W	
R1204	ERJ3GEYJ220	22 / J / 1/10W	
R1205	ERJ3GEYJ103	10K / J / 1/10W	
R1210	ERJ3GEYJ103	10K / J / 1/10W	
R1211	ERJ3GEYJ223	22K / J / 1/10W	
R1212	ERJ3GEYJ223	22K / J / 1/10W	
R1213	ERJ3GEYJ223	22K / J / 1/10W	

Z1002	MNR14E0AJ220	Resistor Array	
Z1003	MNR14E0AJ220	Resistor Array	
Z1004	MNR14E0AJ220	Resistor Array	
Z1005	MNR14E0AJ220	Resistor Array	
Z1006	MNR14E0AJ103	Resistor Array	
Z1007	MNR14E0AJ103	Resistor Array	
Z1008	MNR14E0AJ220	Resistor Array	
Z1009	MNR14E0AJ220	Resistor Array	
Z1010	MNR14E0AJ220	Resistor Array	
Z1011	MNR14E0AJ220	Resistor Array	
Z1012	MNR14E0AJ103	Resistor Array	
Z1013	MNR14E0AJ103	Resistor Array	
Z1015	MNR14E0AJ103	Resistor Array	
Z1016	MNR14E0AJ220	Resistor Array	
Z1017	MNR14E0AJ220	Resistor Array	
Z1018	MNR14E0AJ220	Resistor Array	
Z1019	MNR14E0AJ220	Resistor Array	
Z1020	MNR14E0AJ220	Resistor Array	
Z1021	MNR14E0AJ220	Resistor Array	
Z1022	D1H84704A008	Resistor Array	
Z1023	D1H84704A008	Resistor Array	
Z1024	D1H84704A008	Resistor Array	
Z1025	D1H84704A008	Resistor Array	
Z1026	D1H84704A008	Resistor Array	
Z1027	D1H84704A008	Resistor Array	
Z1028	D1H84704A008	Resistor Array	
Z1029	D1H84704A008	Resistor Array	
Z1030	D1H822240002	Resistor Array	
Z1031	D1H822240002	Resistor Array	
Z1032	MNR14E0AJ103	Resistor Array	
Z1033	MNR14E0AJ220	Resistor Array	
Z1034	MNR14E0AJ103	Resistor Array	
Z1035	MNR14E0AJ220	Resistor Array	
Z1036	MNR14E0AJ220	Resistor Array	
Z1037	MNR14E0AJ220	Resistor Array	
Z1038	MNR14E0AJ220	Resistor Array	
Z1039	MNR14E0AJ220	Resistor Array	
Z1040	MNR14E0AJ220	Resistor Array	
Z1041	MNR14E0AJ220	Resistor Array	

Z1042	MNR14E0AJ220	Resistor Array	
Z1043	MNR14E0AJ103	Resistor Array	
Z1044	MNR14E0AJ103	Resistor Array	
Z1045	MNR14E0AJ103	Resistor Array	
Z1046	MNR14E0AJ103	Resistor Array	
Z1047	MNR14E0AJ103	Resistor Array	
Z1048	MNR14E0AJ220	Resistor Array	
Z1049	MNR14E0AJ220	Resistor Array	
Z1050	MNR14E0AJ220	Resistor Array	
Z1051	MNR14E0AJ220	Resistor Array	
Z1052	MNR14E0AJ220	Resistor Array	
Z1053	MNR14E0AJ220	Resistor Array	
Z1054	MNR14E0AJ220	Resistor Array	
Z1055	MNR14E0AJ103	Resistor Array	
Z1056	MNR14E0AJ103	Resistor Array	
Z1057	MNR14E0AJ103	Resistor Array	
Z1058	MNR14E0AJ103	Resistor Array	
Z1059	MNR14E0AJ103	Resistor Array	
Z1060	MNR14E0AJ103	Resistor Array	
Z1061	MNR14E0AJ103	Resistor Array	
Z1062	MNR14E0AJ103	Resistor Array	
Z1063	MNR14E0AJ103	Resistor Array	
Z1064	MNR14E0AJ103	Resistor Array	
Z1065	MNR14E0AJ103	Resistor Array	
Z1066	MNR14E0AJ103	Resistor Array	
Z1068	MNR14E0AJ103	Resistor Array	
Z1069	MNR14E0AJ103	Resistor Array	
Z1071	MNR14E0AJ103	Resistor Array	
Z1072	MNR14E0AJ103	Resistor Array	
Z1073	MNR14E0AJ220	Resistor Array	
Z1074	MNR14E0AJ220	Resistor Array	
Z1075	MNR14E0AJ220	Resistor Array	
Z1076	MNR14E0AJ220	Resistor Array	
Z1077	MNR14E0AJ220	Resistor Array	
Z1078	MNR14E0AJ220	Resistor Array	
Z1081	MNR14E0AJ220	Resistor Array	
Z1082	MNR14E0AJ220	Resistor Array	
Z1083	MNR14E0AJ220	Resistor Array	
Z1400	MNR14E0AJ220	Resistor Array	

Z1401	MNR14E0AJ220	Resistor Array	
Z1402	MNR14E0AJ220	Resistor Array	
Z1403	MNR14E0AJ220	Resistor Array	
Z1404	MNR14E0AJ103	Resistor Array	
Z1405	MNR14E0AJ103	Resistor Array	
CAPACITORS			
C1000	F2G1A1010013	100 / M / 10V	
C1001	ECUX1E104ZFB	0.1 / Z / 25V	
C1002	ECUX1H102KBV	1000p / K / 50V	
C1003	ECUX1H102KBV	1000p / K / 50V	
C1004	ECUX1E104ZFB	0.1 / Z / 25V	
C1005	F2G1A1010013	100 / M / 10V	
C1006	F2G0G2210002	220 / M / 4V	
C1007	ECUX1H102KBV	1000p / K / 50V	
C1008	ECUX1E104ZFB	0.1 / Z / 25V	
C1009	F2G0G2210002	220 / M / 4V	
C1010	ECUX1H102KBV	1000p / K / 50V	
C1011	ECUX1E104ZFB	0.1 / Z / 25V	
C1012	ECUX1E104ZFB	0.1 / Z / 25V	
C1013	ECUX1E104ZFB	0.1 / Z / 25V	
C1014	ECUX1E104ZFB	0.1 / Z / 25V	
C1015	ECUX1H102KBV	1000p / K / 50V	
C1016	ECUX1E104ZFB	0.1 / Z / 25V	
C1017	ECUX1H102KBV	1000p / K / 50V	
C1018	ECUX1H102KBV	1000p / K / 50V	
C1019	ECUX1H102KBV	1000p / K / 50V	
C1020	ECUX1H102KBV	1000p / K / 50V	
C1021	ECUX1E104ZFB	0.1 / Z / 25V	
C1024	ECUX1H102KBV	1000p / K / 50V	
C1026	ECUX1E104ZFB	0.1 / Z / 25V	
C1028	ECUX1H102KBV	1000p / K / 50V	
C1029	ECUX1E104ZFB	0.1 / Z / 25V	
C1038	ECUX1H102KBV	1000p / K / 50V	
C1039	ECUX1H102KBV	1000p / K / 50V	
C1041	ECUX1E104ZFB	0.1 / Z / 25V	
C1043	F2G1A1010013	100 / M / 10V	
C1045	ECUX1E104ZFB	0.1 / Z / 25V	
C1049	F2G1C1010024	100 / M / 16V	
C1050	ECUX1H102KBV	1000p / K / 50V	

C1051	ECUX1H102KBV	1000p / K / 50V	
C1052	F2G1A1010013	100 / M / 10V	
C1053	ECUX1E104ZFV	0.1 / Z / 25V	
C1054	ECUX1E104ZFV	0.1 / Z / 25V	
C1055	ECUX1H102KBV	1000p / K / 50V	
C1056	ECUX1E104ZFV	0.1 / Z / 25V	
C1057	F2G1C1010024	100 / M / 16V	
C1058	ECUX1E104ZFV	0.1 / Z / 25V	
C1059	ECUX1E104ZFV	0.1 / Z / 25V	
C1060	ECUX1E104ZFV	0.1 / Z / 25V	
C1061	ECUX1E104ZFV	0.1 / Z / 25V	
C1062	ECUX1E104ZFV	0.1 / Z / 25V	
C1063	ECUX1E104ZFV	0.1 / Z / 25V	
C1064	ECUX1E104ZFV	0.1 / Z / 25V	
C1065	ECUX1E104ZFV	0.1 / Z / 25V	
C1066	ECUX1E104ZFV	0.1 / Z / 25V	
C1067	ECUX1E104ZFV	0.1 / Z / 25V	
C1068	ECUX1E104ZFV	0.1 / Z / 25V	
C1069	ECUX1E104ZFV	0.1 / Z / 25V	
C1070	ECUX1E104ZFV	0.1 / Z / 25V	
C1071	F2G1C1000014	10 / M / 16V	
C1072	ECUX1E104ZFV	0.1 / Z / 25V	
C1073	ECUX1E104ZFV	0.1 / Z / 25V	
C1074	F2G1C1000014	10 / M / 16V	
C1075	F2G1C1000014	10 / M / 16V	
C1076	ECUX1E104ZFV	0.1 / Z / 25V	
C1077	F2G1C1000014	10 / M / 16V	
C1078	ECUX1E104ZFV	0.1 / Z / 25V	
C1079	ECUX1E104ZFV	0.1 / Z / 25V	
C1080	ECUX1E104ZFV	0.1 / Z / 25V	
C1081	ECUX1E104ZFV	0.1 / Z / 25V	
C1082	ECUX1E104ZFV	0.1 / Z / 25V	
C1083	ECUX1E104ZFV	0.1 / Z / 25V	
C1084	ECUX1E104ZFV	0.1 / Z / 25V	
C1085	ECUX1E104ZFV	0.1 / Z / 25V	
C1086	ECUX1E104ZFV	0.1 / Z / 25V	
C1087	ECUX1E104ZFV	0.1 / Z / 25V	
C1088	ECUX1E104ZFV	0.1 / Z / 25V	
C1089	F2G1C1000014	10 / M / 16V	

C1090	F2G1C1000014	10 / M / 16V	
C1091	ECUX1E104ZFV	0.1 / Z / 25V	
C1092	F2G1C1000014	10 / M / 16V	
C1093	ECUX1E104ZFV	0.1 / Z / 25V	
C1094	ECUX1E104ZFV	0.1 / Z / 25V	
C1095	F2G1C1000014	10 / M / 16V	
C1096	ECUX1E104ZFV	0.1 / Z / 25V	
C1097	F2G1C1000014	10 / M / 16V	
C1098	ECUX1E104ZFV	0.1 / Z / 25V	
C1099	F2G1C1000014	10 / M / 16V	
C1100	ECUX1E104ZFV	0.1 / Z / 25V	
C1101	ECUX1E104ZFV	0.1 / Z / 25V	
C1102	ECUX1E104ZFV	0.1 / Z / 25V	
C1103	F2G1C1000014	10 / M / 16V	
C1104	ECUX1E104ZFV	0.1 / Z / 25V	
C1105	ECUX1E104ZFV	0.1 / Z / 25V	
C1106	ECUX1E104ZFV	0.1 / Z / 25V	
C1107	ECUX1E104ZFV	0.1 / Z / 25V	
C1108	F2G1C1000014	10 / M / 16V	
C1109	ECUX1E104ZFV	0.1 / Z / 25V	
C1110	F2G1C1000014	10 / M / 16V	
C1111	ECUX1E104ZFV	0.1 / Z / 25V	
C1112	ECUX1E104ZFV	0.1 / Z / 25V	
C1113	ECUX1E104ZFV	0.1 / Z / 25V	
C1114	ECUX1E104ZFV	0.1 / Z / 25V	
C1115	F2G1C1000014	10 / M / 16V	
C1116	ECUX1E104ZFV	0.1 / Z / 25V	
C1117	ECUX1E104ZFV	0.1 / Z / 25V	
C1118	ECUX1E104ZFV	0.1 / Z / 25V	
C1119	F2G1C1000014	10 / M / 16V	
C1120	F2G1C1000014	10 / M / 16V	
C1121	ECUX1E104ZFV	0.1 / Z / 25V	
C1122	ECUX1H102KBV	1000p / K / 50V	
C1123	ECUX1H470JCV	47p / J / 50V	
C1124	ECUX1H102KBV	1000p / K / 50V	
C1125	ECUX1E104ZFV	0.1 / Z / 25V	
C1126	ECUX1E104ZFV	0.1 / Z / 25V	
C1127	ECUX1E104ZFV	0.1 / Z / 25V	
C1128	ECUX1E104ZFV	0.1 / Z / 25V	

C1129	ECUX1E104ZFV	0.1 / Z / 25V	
C1130	ECUX1H470JCV	47p / J / 50V	
C1131	F2G0J4700012	47 / M / 6.3V	
C1132	ECUX1E104ZFV	0.1 / Z / 25V	
C1133	ECUX1E104ZFV	0.1 / Z / 25V	
C1134	ECUX1E104ZFV	0.1 / Z / 25V	
C1135	ECUX1E104ZFV	0.1 / Z / 25V	
C1136	ECUX1E104ZFV	0.1 / Z / 25V	
C1137	ECUX1E104ZFV	0.1 / Z / 25V	
C1138	F2G0J4700012	47 / M / 6.3V	
C1139	ECUX1E104ZFV	0.1 / Z / 25V	
C1140	ECUX1E104ZFV	0.1 / Z / 25V	
C1141	ECUX1E104ZFV	0.1 / Z / 25V	
C1142	ECUX1E104ZFV	0.1 / Z / 25V	
C1143	ECUX1E104ZFV	0.1 / Z / 25V	
C1144	ECUX1E104ZFV	0.1 / Z / 25V	
C1145	ECUX1E104ZFV	0.1 / Z / 25V	
C1146	ECUX1E104ZFV	0.1 / Z / 25V	
C1147	ECUX1E104ZFV	0.1 / Z / 25V	
C1148	ECUX1E104ZFV	0.1 / Z / 25V	
C1149	ECUX1E104ZFV	0.1 / Z / 25V	
C1150	ECUX1E104ZFV	0.1 / Z / 25V	
C1151	ECUX1E104ZFV	0.1 / Z / 25V	
C1152	ECUX1E104ZFV	0.1 / Z / 25V	
C1153	ECUX1E104ZFV	0.1 / Z / 25V	
C1154	ECUX1E104ZFV	0.1 / Z / 25V	
C1155	F2G1C1000014	10 / M / 16V	
C1156	ECUX1E104ZFV	0.1 / Z / 25V	
C1157	ECUX1E104ZFV	0.1 / Z / 25V	
C1158	F2G1C1000014	10 / M / 16V	
C1159	F2G1C1000014	10 / M / 16V	
C1160	ECUX1E104ZFV	0.1 / Z / 25V	
C1161	F2G1C1000014	10 / M / 16V	
C1162	ECUX1E104ZFV	0.1 / Z / 25V	
C1163	ECUX1E104ZFV	0.1 / Z / 25V	
C1164	ECUX1E104ZFV	0.1 / Z / 25V	
C1165	ECUX1E104ZFV	0.1 / Z / 25V	
C1166	ECUX1E104ZFV	0.1 / Z / 25V	
C1167	ECUX1E104ZFV	0.1 / Z / 25V	

C1168	ECUX1E104ZFV	0.1 / Z / 25V	
C1169	ECUX1E104ZFV	0.1 / Z / 25V	
C1170	ECUX1E104ZFV	0.1 / Z / 25V	
C1171	ECUX1E104ZFV	0.1 / Z / 25V	
C1172	ECUX1E104ZFV	0.1 / Z / 25V	
C1173	F2G1C1000014	10 / M / 16V	
C1174	F2G1C1000014	10 / M / 16V	
C1175	ECUX1E104ZFV	0.1 / Z / 25V	
C1176	F2G1C1000014	10 / M / 16V	
C1177	ECUX1E104ZFV	0.1 / Z / 25V	
C1178	ECUX1E104ZFV	0.1 / Z / 25V	
C1179	F2G1C1000014	10 / M / 16V	
C1180	ECUX1E104ZFV	0.1 / Z / 25V	
C1181	F2G1C1000014	10 / M / 16V	
C1182	ECUX1E104ZFV	0.1 / Z / 25V	
C1183	F2G1C1000014	10 / M / 16V	
C1184	ECUX1E104ZFV	0.1 / Z / 25V	
C1185	ECUX1E104ZFV	0.1 / Z / 25V	
C1186	ECUX1E104ZFV	0.1 / Z / 25V	
C1187	F2G1C1000014	10 / M / 16V	
C1188	ECUX1E104ZFV	0.1 / Z / 25V	
C1189	ECUX1E104ZFV	0.1 / Z / 25V	
C1190	ECUX1E104ZFV	0.1 / Z / 25V	
C1191	ECUX1E104ZFV	0.1 / Z / 25V	
C1192	F2G1C1000014	10 / M / 16V	
C1193	ECUX1E104ZFV	0.1 / Z / 25V	
C1194	F2G1C1000014	10 / M / 16V	
C1195	ECUX1E104ZFV	0.1 / Z / 25V	
C1196	ECUX1E104ZFV	0.1 / Z / 25V	
C1197	ECUX1E104ZFV	0.1 / Z / 25V	
C1198	ECUX1E104ZFV	0.1 / Z / 25V	
C1199	F2G1C1000014	10 / M / 16V	
C1200	ECUX1E104ZFV	0.1 / Z / 25V	
C1201	ECUX1E104ZFV	0.1 / Z / 25V	
C1202	ECUX1E104ZFV	0.1 / Z / 25V	
C1203	F2G1C1000014	10 / M / 16V	
C1204	F2G1C1000014	10 / M / 16V	
C1205	ECUX1E104ZFV	0.1 / Z / 25V	
C1206	ECUX1H102KBV	1000p / K / 50V	

C1207	ECUX1H470JCV	47p / J / 50V	
C1208	ECUX1H102KBV	1000p / K / 50V	
C1209	ECUX1E104ZFV	0.1 / Z / 25V	
C1210	ECUX1E104ZFV	0.1 / Z / 25V	
C1211	ECUX1E104ZFV	0.1 / Z / 25V	
C1212	ECUX1E104ZFV	0.1 / Z / 25V	
C1213	ECUX1E104ZFV	0.1 / Z / 25V	
C1214	ECUX1H470JCV	47p / J / 50V	
C1215	F2G0J4700012	47 / M / 6.3V	
C1216	ECUX1E104ZFV	0.1 / Z / 25V	
C1217	ECUX1E104ZFV	0.1 / Z / 25V	
C1218	ECUX1E104ZFV	0.1 / Z / 25V	
C1219	ECUX1E104ZFV	0.1 / Z / 25V	
C1220	ECUX1E104ZFV	0.1 / Z / 25V	
C1221	ECUX1E104ZFV	0.1 / Z / 25V	
C1222	F2G0J4700012	47 / M / 6.3V	
C1223	ECUX1E104ZFV	0.1 / Z / 25V	
C1224	ECUX1E104ZFV	0.1 / Z / 25V	
C1225	ECUX1E104ZFV	0.1 / Z / 25V	
C1226	ECUX1H102KBV	1000p / K / 50V	
C1227	ECUX1E104ZFV	0.1 / Z / 25V	
C1228	ECUX1H102KBV	1000p / K / 50V	
C1229	ECUX1E104ZFV	0.1 / Z / 25V	
C1230	ECUX1H102KBV	1000p / K / 50V	
C1231	ECUX1E104ZFV	0.1 / Z / 25V	
C1232	ECUX1H102KBV	1000p / K / 50V	
C1233	ECUX1E104ZFV	0.1 / Z / 25V	
C1242	ECUX1E104ZFV	0.1 / Z / 25V	
C1243	F2G1C1000014	10 / M / 16V	
C1244	ECUX1E104ZFV	0.1 / Z / 25V	
C1245	F2G1C1000014	10 / M / 16V	
C1246	ECUX1E104ZFV	0.1 / Z / 25V	
C1247	F2G1C1000014	10 / M / 16V	
C1248	ECUX1E104ZFV	0.1 / Z / 25V	
C1249	F2G1C1000014	10 / M / 16V	
C1250	ECUX1E104ZFV	0.1 / Z / 25V	
C1251	ECUX1E104ZFV	0.1 / Z / 25V	
C1253	ECUX1H470JCV	47p / J / 50V	
C1254	ECUX1E104ZFV	0.1 / Z / 25V	

C1255	ECUX1E104ZFV	0.1 / Z / 25V	
C1256	ECUX1H470JCV	47p / J / 50V	
C1257	F2G1H1R00012	1R0 / M / 50V	
C1258	ECUX1E104ZFV	0.1 / Z / 25V	
C1259	ECUX1E104ZFV	0.1 / Z / 25V	
C1260	F2G0J4700012	47 / M / 6.3V	
C1261	ECUX1E104ZFV	0.1 / Z / 25V	
C1262	ECUX1E104ZFV	0.1 / Z / 25V	
C1263	ECUX1H102KBV	1000p / K / 50V	
C1264	ECUX1H102KBV	1000p / K / 50V	
C1265	ECUX1E104ZFV	0.1 / Z / 25V	
C1266	ECUX1H102KBV	1000p / K / 50V	
C1267	ECUX1E104ZFV	0.1 / Z / 25V	
C1268	ECUX1H102KBV	1000p / K / 50V	
C1269	ECUX1E104ZFV	0.1 / Z / 25V	
C1270	ECUX1E104ZFV	0.1 / Z / 25V	
C1271	ECUX1H102KBV	1000p / K / 50V	
C1272	ECUX1E104ZFV	0.1 / Z / 25V	
C1273	ECUX1H102KBV	1000p / K / 50V	
C1274	ECUX1H102KBV	1000p / K / 50V	
C1275	ECUX1E104ZFV	0.1 / Z / 25V	
C1276	ECUX1H102KBV	1000p / K / 50V	
C1277	ECUX1E104ZFV	0.1 / Z / 25V	
C1278	ECUX1E104ZFV	0.1 / Z / 25V	
C1279	ECUX1E104ZFV	0.1 / Z / 25V	
C1280	ECUX1E104ZFV	0.1 / Z / 25V	
C1281	ECUX1H102KBV	1000p / K / 50V	
C1282	ECUX1H102KBV	1000p / K / 50V	
C1283	ECUX1E104ZFV	0.1 / Z / 25V	
C1284	ECUX1E104ZFV	0.1 / Z / 25V	
C1285	ECUX1H102KBV	1000p / K / 50V	
C1286	ECUX1E104ZFV	0.1 / Z / 25V	
C1287	ECUX1E104ZFV	0.1 / Z / 25V	
C1289	ECUX1E104ZFV	0.1 / Z / 25V	
C1291	ECUX1E104ZFV	0.1 / Z / 25V	
C1292	ECUX1H102KBV	1000p / K / 50V	
C1293	ECUX1E104ZFV	0.1 / Z / 25V	
C1294	ECUX1E104ZFV	0.1 / Z / 25V	
C1295	ECUX1E104ZFV	0.1 / Z / 25V	

C1296	ECUX1H102KBV	1000p / K / 50V	
C1297	ECUX1H102KBV	1000p / K / 50V	
C1298	ECUX1E104ZFV	0.1 / Z / 25V	
C1299	ECUX1H102KBV	1000p / K / 50V	
C1300	ECUX1H102KBV	1000p / K / 50V	
C1301	ECUX1H102KBV	1000p / K / 50V	
C1302	ECUX1E104ZFV	0.1 / Z / 25V	
C1303	ECUX1E104ZFV	0.1 / Z / 25V	
C1304	ECUX1E104ZFV	0.1 / Z / 25V	
C1305	ECUX1E104ZFV	0.1 / Z / 25V	
C1307	ECUX1H102KBV	1000p / K / 50V	
C1308	ECUX1H102KBV	1000p / K / 50V	
C1309	ECUX1H102KBV	1000p / K / 50V	
C1310	ECUX1E104ZFV	0.1 / Z / 25V	
C1311	ECUX1E104ZFV	0.1 / Z / 25V	
C1312	ECUX1E104ZFV	0.1 / Z / 25V	
C1313	F2G0G2210002	220 / M / 4V	
C1314	ECUX1E104ZFV	0.1 / Z / 25V	
C1315	ECUX1E104ZFV	0.1 / Z / 25V	
C1316	F2G1A1010013	100 / M / 10V	
C1319	ECUX1E104ZFV	0.1 / Z / 25V	
C1320	ECUX1E104ZFV	0.1 / Z / 25V	
C1321	ECJ1VF1H104Z	0.1 / Z / 50V	
C1322	ECUX1E104ZFV	0.1 / Z / 25V	
C1323	F2G1V4700008	47 / M / 35V	
C1324	ECJ1VF1H104Z	0.1 / Z / 50V	
C1325	F2G1V4700008	47 / M / 35V	
C1326	ECUX1E104ZFV	0.1 / Z / 25V	
C1327	F2G1A1010013	100 / M / 10V	
C1328	F2G1E4R70008	4R7 / M / 25V	
C1329	F2G0G2210002	220 / M / 4V	
C1330	ECUX1E104ZFV	0.1 / Z / 25V	
C1331	ECUX1E104ZFV	0.1 / Z / 25V	
C1332	ECUX1H101JCV	100p / J / 50V	
C1333	ECUX1E104ZFV	0.1 / Z / 25V	
C1334	ECUX1H101JCV	100p / J / 50V	
C1335	ECUX1E104ZFV	0.1 / Z / 25V	
C1336	ECUX1E104ZFV	0.1 / Z / 25V	
C1337	ECUX1E104ZFV	0.1 / Z / 25V	

C1338	ECUX1E104ZFV	0.1 / Z / 25V	
C1339	ECUX1H101JCV	100p / J / 50V	
C1340	F2G1A1010013	100 / M / 10V	
C1341	F2G0G2210002	220 / M / 4V	
C1342	F2G0G2210002	220 / M / 4V	
C1343	ECUX1E104ZFV	0.1 / Z / 25V	
C1344	F2G1E4R70008	4R7 / M / 25V	
C1345	F2G0G2210002	220 / M / 4V	
C1346	ECUX1E104ZFV	0.1 / Z / 25V	
C1347	ECUX1E104ZFV	0.1 / Z / 25V	
C1348	F2G1E1010017	100p / M / 25V	
C1349	F2G1E1010017	100p / M / 25V	
C1350	ECUX1H101JCV	100p / J / 50V	
C1351	F2G1A1010013	100 / M / 10V	
C1352	ECUX1E104ZFV	0.1 / Z / 25V	
C1353	ECUX1E104ZFV	0.1 / Z / 25V	
C1354	ECUX1E104ZFV	0.1 / Z / 25V	
C1355	F2G1C1010024	100 / M / 16V	
C1356	F2G1C1010024	100 / M / 16V	
C1357	ECUX1H101JCV	100p / J / 50V	
C1358	F2G1A1010013	100 / M / 10V	
C1359	ECUX1E104ZFV	0.1 / Z / 25V	
C1360	ECUX1E104ZFV	0.1 / Z / 25V	
C1362	ECUX1E104ZFV	0.1 / Z / 25V	
C1363	F2G1A1010013	100 / M / 10V	
C1364	ECJ1VF1H104Z	0.1 / Z / 50V	
C1365	F2G1V4700008	47 / M / 35V	
C1383	F2G1C1010024	100 / M / 16V	
C1384	ECUX1E104ZFV	0.1 / Z / 25V	
C1385	F2G1V4700008	47 / M / 35V	
C1386	ECJ1VF1H104Z	0.1 / Z / 50V	
C1388	F2G1A1010013	100 / M / 10V	
C1389	ECUX1E104ZFV	0.1 / Z / 25V	
C1400	ECJ1VF1H104Z	0.1 / Z / 50V	
C1401	F2G1V4700008	47 / M / 35V	
C1402	ECUX1E104ZFV	0.1 / Z / 25V	
C1403	ECUX1E104ZFV	0.1 / Z / 25V	
C1404	ECUX1H101JCV	100p / J / 50V	
C1405	ECUX1H101JCV	100p / J / 50V	

C1406	ECUX1H101JCV	100p / J / 50V	
C1407	ECUX1H101JCV	100p / J / 50V	
C1408	ECUX1H101JCV	100p / J / 50V	
C1409	ECUX1H101JCV	100p / J / 50V	
C1410	ECUX1H101JCV	100p / J / 50V	
C1411	ECUX1H101JCV	100p / J / 50V	
C1412	ECUX1H101JCV	100p / J / 50V	
C1413	ECUX1H101JCV	100p / J / 50V	
C1414	ECUX1H101JCV	100p / J / 50V	
C1415	ECUX1H101JCV	100p / J / 50V	
C1416	ECUX1H101JCV	100p / J / 50V	
C1417	ECUX1H101JCV	100p / J / 50V	
C1418	ECUX1E104ZFB	0.1 / Z / 25V	
C1419	F2G0J4700012	47 / M / 6.3V	
C1421	ECUX1H102KBV	1000p / K / 50V	
C1422	ECUX1H102KBV	1000p / K / 50V	
C1423	ECUX1H102KBV	1000p / K / 50V	
C1424	ECUX1H102KBV	1000p / K / 50V	
C1425	ECUX1H102KBV	1000p / K / 50V	
C1426	ECUX1H102KBV	1000p / K / 50V	
C1427	ECUX1H102KBV	1000p / K / 50V	
C1428	ECUX1H102KBV	1000p / K / 50V	
C1429	ECUX1H102KBV	1000p / K / 50V	
C1430	ECUX1H102KBV	1000p / K / 50V	
C1431	ECUX1H102KBV	1000p / K / 50V	
C1432	ECUX1H102KBV	1000p / K / 50V	
C1433	ECUX1H102KBV	1000p / K / 50V	
C1434	ECUX1H102KBV	1000p / K / 50V	
C1435	ECUX1H102KBV	1000p / K / 50V	
C1436	ECUX1H102KBV	1000p / K / 50V	
C1437	ECUX1H102KBV	1000p / K / 50V	
C1438	ECUX1H102KBV	1000p / K / 50V	
C1439	ECUX1H102KBV	1000p / K / 50V	
C1440	F2G1A1010013	100 / M / 10V	
C1441	ECUX1H102KBV	1000p / K / 50V	
COILS			
L1000	BLM11A601SPT	Core	
L1001	BLM11A601SPT	Core	
L1002	BLM11A601SPT	Core	

L1003	BLM11A601SPT	Core	
L1004	BLM11A601SPT	Core	
L1005	BLM11A601SPT	Core	
L1006	BLM11A601SPT	Core	
L1007	BLM11A601SPT	Core	
L1008	G1C220KA0057	Coil	
L1009	G1C220KA0057	Coil	
L1010	BLM11A601SPT	Core	
L1011	BLM11A601SPT	Core	
L1012	G1C220KA0057	Coil	
L1013	G1C220KA0057	Coil	
L1014	BLM11A601SPT	Core	
L1015	BLM11A601SPT	Core	
L1016	G1C220KA0057	Coil	
L1017	BLM11A601SPT	Core	
L1018	BLM11A601SPT	Core	
L1019	BLM11A601SPT	Core	
L1020	BLM11A601SPT	Core	
L1021	BLM11A601SPT	Core	
DIODES			
D1001	B0JCAE000001	Diode	
D1002	B0JCAE000001	Diode	
TRANSISTOR			
Q1000	B1GBCFLL0002	Transistor	
Q1001	2SJ462-T2	Transistor	
Q1002	UNR221100L	Transistor	
Q1003	UN2111	Transistor	
ICs			
IC1000	C0CBABG00019	IC	
IC1001	C0CBABG00019	IC	
IC1002	C0JBAA000321	IC	
IC1003	C0JBAZ001411	IC, CMOS Logic	
IC1004	C0JBAZ001411	IC, CMOS Logic	
IC1005	C0JBAZ001411	IC, CMOS Logic	
IC1006	C0JBAZ002120	IC, CMOS Logic	
IC1007	C0ZBZ0000834	IC	
IC1008	C0JBAZ002120	IC, CMOS Logic	
IC1009	C0ZBZ0000834	IC	
IC1014	C0ABCA000038	IC	

IC1015	C0ABCA000038	IC	
IC1016	NJM2901V	IC	
IC1017	NJM2901V	IC	
IC1018	C0FBBD000116	IC, LINEAR	
IC1019	C0FBBD000116	IC, LINEAR	
IC1020	M62743ML	Reset IC	
IC1021	M51953BFP	Reset IC	
IC1022	UPD5555G	IC Timer	
IC1023	S-93C66ADFJ	IC, EEP ROM	
IC1024	C2CBYK000002	IC, 16Bit Micro controller	
IC1025	C3FBLD000116	IC, FLASH Memory	
IC1026	C3BBHG000058	IC, S RAM	
IC1027	C0JBAA000279	IC	
IC1028	C0JBAZ001411	IC, CMOS Logic	
IC1029	C0JBAN000168	IC	
IC1030	C0JBAN000168	IC	
IC1031	C0JBAN000168	IC	
IC1032	C0JBAN000168	IC	
IC1033	SN74LV32ANS2	IC,TTL Logic	
IC1034	C0JBAZ001411	IC, CMOS Logic	
IC1035	C0JBAZ001411	IC, CMOS Logic	
IC1036	C0JBAZ001411	IC, CMOS Logic	
IC1038	C0JBAF000531	IC, CMOS Logic	
IC1039	C0JBAF000531	IC, CMOS Logic	
IC1040	C0JBAF000531	IC, CMOS Logic	
IC1041	C0CBAKE00009	IC, Regulator	
IC1042	C0CBAKE00009	IC, Regulator	
IC1044	C0JBAZ001411	IC, CMOS Logic	
IC1045	C0JBAZ001936	IC, CMOS Logic	
OTHERS			
CN1000	176379-6	Connector	
CN1001	K1MN26B00097	Connector	
CN1002	K1MN24B00111	Connector	
CN1003	K1MN32A00027	Connector	
CN1004	K1KA06A00408	Connector	
CN1005	K1KA34A00097	Connector	
CN1006	K1KA13A00127	Connector	
CN1007	K1MN36A00014	Connector	
CN1008	K1MN14A00087	Connector	

CN1009	K1MN22B00097	Connector	
CN1010	K1KA03A00465	Connector	
CN1014	K1MN30A00064	Connector	
CN1015	K1MN22A00066	Connector	
SP1	K1NC02Z00009	Connector	
X1000	H2D165500002	Oscillator	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.2 INTERFACE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R2000	ERJ3GEYJ472	4.7K / J / 1/10W	
R2001	ERJ3GEYJ100	10 / J / 1/10W	
R2002	ERJ3GEYJ100	10 / J / 1/10W	
R2003	ERJ3GEYJ100	10 / J / 1/10W	
R2004	ERJ3GEYJ100	10 / J / 1/10W	
R2005	ERJ3GEYJ100	10 / J / 1/10W	
R2006	ERJ3GEYJ100	10 / J / 1/10W	
R2007	ERJ3GEYJ100	10 / J / 1/10W	
R2008	ERJ3GEYJ100	10 / J / 1/10W	
R2009	ERJ3GEYJ100	10 / J / 1/10W	
R2010	ERJ3GEYJ100	10 / J / 1/10W	
R2011	ERJ3GEYJ100	10 / J / 1/10W	
R2012	ERJ3GEYJ100	10 / J / 1/10W	
R2013	ERJ3GEYJ100	10 / J / 1/10W	
R2138	ERJ3GEYJ472	4.7K / J / 1/10W	
R2139	ERJ3GEYJ472	4.7K / J / 1/10W	
R2140	ERJ3GEYJ472	4.7K / J / 1/10W	
R2141	ERJ3GEYJ472	4.7K / J / 1/10W	
R2142	ERJ3GEYJ472	4.7K / J / 1/10W	
R2143	ERJ3GEYJ472	4.7K / J / 1/10W	
R2253	ERJ3GEYJ472	4.7K / J / 1/10W	
R2254	ERJ3GEYJ472	4.7K / J / 1/10W	
R2255	ERJ3GEYJ472	4.7K / J / 1/10W	
R2256	ERJ3GEYJ472	4.7K / J / 1/10W	
R2257	ERJ3GEYJ472	4.7K / J / 1/10W	
R2258	ERJ3GEYJ472	4.7K / J / 1/10W	
R2378	ERJ3GEYJ472	4.7K / J / 1/10W	
R2379	ERJ3GEYJ472	4.7K / J / 1/10W	
R2380	ERJ3GEYJ472	4.7K / J / 1/10W	
R2381	ERJ3GEYJ472	4.7K / J / 1/10W	
R2383	ERJ3GEY0R00	0-ohm Jumper	
R2385	ERJ3GEY0R00	0-ohm Jumper	

R2386	ERJ3GEY0R00	0-ohm Jumper	
R2388	ERJ3GEY0R00	0-ohm Jumper	
R2390	ERJ3GEY0R00	0-ohm Jumper	
R2392	ERJ3GEY0R00	0-ohm Jumper	
R2393	ERJ3GEYJ472	4.7K / J / 1/10W	
R2395	ERJ3GEYJ101	100 / J / 1/10W	
R2396	ERJ3GEYJ102	1K / J / 1/10W	
R2398	ERJ3GEY0R00	0-ohm Jumper	
R2400	ERJ3GEY0R00	0-ohm Jumper	
R2401	ERJ3GEY0R00	0-ohm Jumper	
R2402	ERJ3GEYJ100	10 / J / 1/10W	
R2403	ERJ3GEY0R00	0-ohm Jumper	
R2405	ERJ3GEYJ223	22K / J / 1/10W	
R2406	ERJ3GEYJ223	22K / J / 1/10W	
R2407	ERJ3GEY0R00	0-ohm Jumper	
R2410	ERJ3GEY0R00	0-ohm Jumper	
R2412	ERJ3GEY0R00	0-ohm Jumper	
R2414	ERJ3GEY0R00	0-ohm Jumper	
R2415	ERJ3GEY0R00	0-ohm Jumper	
R2417	ERJ3GEY0R00	0-ohm Jumper	
R2418	ERJ3GEY0R00	0-ohm Jumper	
R2422	ERJ3GEY0R00	0-ohm Jumper	
R2423	ERJ3GEY0R00	0-ohm Jumper	
R2424	ERJ3GEY0R00	0-ohm Jumper	
R2425	ERJ3GEY0R00	0-ohm Jumper	
R2426	ERJ3GEY0R00	0-ohm Jumper	
R2427	ERJ3GEY0R00	0-ohm Jumper	
R2428	ERJ3GEY0R00	0-ohm Jumper	
R2429	ERJ3GEY0R00	0-ohm Jumper	
R2430	ERJ3GEY0R00	0-ohm Jumper	
R2431	ERJ3GEYJ221	220 / J / 1/10W	
R2432	ERJ3GEYJ101	100 / J / 1/10W	
R2433	ERJ3GEYJ682	6.8K / J / 1/10W	
R2434	ERJ3GEYJ102	1K / J / 1/10W	
R2435	ERJ3GEYJ103	10K / J / 1/10W	
R2438	ERJ3GEYJ220	22 / J / 1/10W	
R2439	ERJ3GEYJ103	10K / J / 1/10W	
R2440	ERJ3GEYJ103	10K / J / 1/10W	
R2441	ERJ3GEYJ103	10K / J / 1/10W	

R2442	ERJ3GEYJ103	10K / J / 1/10W	
R2443	ERJ3GEY0R00	0-ohm Jumper	
R2444	ERJ3GEY0R00	0-ohm Jumper	
R2445	ERJ3GEYJ103	10K / J / 1/10W	
R2446	ERJ3GEYJ103	10K / J / 1/10W	
R2447	ERJ3GEYJ103	10K / J / 1/10W	
R2448	ERJ3GEY0R00	0-ohm Jumper	
R2449	ERJ3GEY0R00	0-ohm Jumper	
R2450	ERJ3GEYJ103	10K / J / 1/10W	
R2451	ERJ3GEYJ105	1000K / J / 1/10W	
R2452	ERJ3GEYJ100	10 / J / 1/10W	
R2453	ERJ3GEY0R00	0-ohm Jumper	
R2454	ERJ3GEYJ103	10K / J / 1/10W	
R2455	ERJ3EKF6201V	6.2K / F / 1/16W	
R2456	ERJ3GEYJ104	100K / J / 1/10W	
R2457	ERJ3GEY0R00	0-ohm Jumper	
R2458	ERJ3GEYJ100	10 / J / 1/10W	
R2459	ERJ3GEY0R00	0-ohm Jumper	
R2460	ERJ3GEYJ100	10 / J / 1/10W	
R2461	ERJ3GEY0R00	0-ohm Jumper	
R2464	ERJ3GEY0R00	0-ohm Jumper	
R2466	ERJ3GEY0R00	0-ohm Jumper	
R2467	ERJ3GEY0R00	0-ohm Jumper	
R2468	ERJ3GEYJ220	22 / J / 1/10W	
R2563	ERJ3GEYJ221	220 / J / 1/10W	
R2564	ERJ3GEYJ221	220 / J / 1/10W	
R2565	ERJ3GEYJ221	220 / J / 1/10W	
R2566	ERJ3GEYJ221	220 / J / 1/10W	
R2567	ERJ3GEYJ472	4.7K / J / 1/10W	
R2568	ERJ3GEYJ472	4.7K / J / 1/10W	
R2569	SMD125-2	Poly Switch	
R2570	ERJ3GEYJ220	22 / J / 1/10W	
R2571	ERJ3GEYJ100	10 / J / 1/10W	
R2572	ERJ3GEYJ100	10 / J / 1/10W	
R2573	ERJ3GEYJ100	10 / J / 1/10W	
R2574	ERJ3GEYJ100	10 / J / 1/10W	
R2575	ERJ3GEYJ100	10 / J / 1/10W	
R2576	ERJ3GEYJ100	10 / J / 1/10W	
R2577	ERJ3GEYJ100	10 / J / 1/10W	

R2578	ERJ3GEYJ100	10 / J / 1/10W	
R2579	ERJ3GEYJ220	22 / J / 1/10W	
R2581	ERJ3GEYJ220	22 / J / 1/10W	
R2582	ERJ3GEYJ220	22 / J / 1/10W	
R2583	ERJ3GEYJ100	10 / J / 1/10W	
R2584	ERJ3GEYJ100	10 / J / 1/10W	
R2585	ERJ3GEYJ100	10 / J / 1/10W	
R2586	ERJ3GEY0R00	0-ohm Jumper	
R2587	ERJ3GEY0R00	0-ohm Jumper	
R2588	ERJ3GEY0R00	0-ohm Jumper	
R2589	ERJ3GEY0R00	0-ohm Jumper	
R2590	ERJ3GEY0R00	0-ohm Jumper	
R2591	ERJ3GEY0R00	0-ohm Jumper	
R2592	ERJ3GEYJ220	22 / J / 1/10W	
R2593	ERJ3GEYJ220	22 / J / 1/10W	
R2594	ERJ3GEYJ220	22 / J / 1/10W	
R2595	ERJ3GEYJ220	22 / J / 1/10W	
R2596	ERJ3GEYJ220	22 / J / 1/10W	
R2597	ERJ3GEYJ220	22 / J / 1/10W	
R2598	ERJ3GEYJ220	22 / J / 1/10W	
R2599	ERJ3GEYJ220	22 / J / 1/10W	
R2600	ERJ3GEYJ220	22 / J / 1/10W	
R2601	ERJ3GEYJ220	22 / J / 1/10W	
R2602	ERJ3GEYJ220	22 / J / 1/10W	
R2603	ERJ3GEYJ220	22 / J / 1/10W	
R2604	ERJ3GEYJ220	22 / J / 1/10W	
R2606	ERJ3GEYJ220	22 / J / 1/10W	
R2607	ERJ3GEYJ220	22 / J / 1/10W	
R2608	ERJ3GEYJ100	10 / J / 1/10W	
R2609	ERJ3GEYJ100	10 / J / 1/10W	
R2610	ERJ3GEYJ100	10 / J / 1/10W	
R2611	ERJ3GEYJ100	10 / J / 1/10W	
R2612	ERJ3GEYJ100	10 / J / 1/10W	
R2613	ERJ3GEYJ100	10 / J / 1/10W	
R2614	ERJ3GEYJ100	10 / J / 1/10W	
R2615	ERJ3GEYJ100	10 / J / 1/10W	
R2616	ERJ3GEYJ220	22 / J / 1/10W	
R2618	ERJ3GEYJ220	22 / J / 1/10W	
R2619	ERJ3GEYJ220	22 / J / 1/10W	

R2620	ERJ3GEYJ103	10K / J / 1/10W	
R2624	ERJ3GEY0R00	0-ohm Jumper	
R2625	ERJ3GEY0R00	0-ohm Jumper	
R2626	ERJ3GEY0R00	0-ohm Jumper	
R2627	ERJ3GEY0R00	0-ohm Jumper	
R2628	ERJ3GEY0R00	0-ohm Jumper	
R2629	ERJ3GEY0R00	0-ohm Jumper	
R2631	ERJ3GEYJ220	22 / J / 1/10W	
R2632	ERJ3GEYJ220	22 / J / 1/10W	
R2633	ERJ3GEYJ220	22 / J / 1/10W	
R2634	ERJ3GEYJ220	22 / J / 1/10W	
R2635	ERJ3GEYJ220	22 / J / 1/10W	
R2636	ERJ3GEYJ220	22 / J / 1/10W	
R2637	ERJ3GEYJ220	22 / J / 1/10W	
R2638	ERJ3GEYJ220	22 / J / 1/10W	
R2639	ERJ3GEYJ220	22 / J / 1/10W	
R2642	ERJ3GEYJ220	22 / J / 1/10W	
R2643	ERJ3GEYJ220	22 / J / 1/10W	
R2644	ERJ3GEYJ220	22 / J / 1/10W	
R2645	ERJ3GEY0R00	0-ohm Jumper	
R2646	ERJ3GEY0R00	0-ohm Jumper	
R2648	ERJ3GEYJ220	22 / J / 1/10W	
R2649	ERJ3GEY0R00	0-ohm Jumper	
R2650	ERJ3GEY0R00	0-ohm Jumper	
R2651	ERJ3GEY0R00	0-ohm Jumper	
R2652	ERJ3GEY0R00	0-ohm Jumper	
R2653	ERJ3GEYJ100	10 / J / 1/10W	
R2654	ERJ3GEYJ100	10 / J / 1/10W	
R2655	ERJ3GEYJ100	10 / J / 1/10W	
R2656	ERJ3GEY0R00	0-ohm Jumper	
R2657	ERJ3GEY0R00	0-ohm Jumper	
R2658	ERJ3GEYJ100	10 / J / 1/10W	
R2659	ERJ3GEYJ100	10 / J / 1/10W	
R2660	ERJ3GEYJ100	10 / J / 1/10W	
R2661	ERJ3GEY0R00	0-ohm Jumper	
R2662	ERJ3GEYJ100	10 / J / 1/10W	
R2663	ERJ3GEYJ100	10 / J / 1/10W	
R2664	ERJ3GEYJ100	10 / J / 1/10W	
R2665	ERJ3GEYJ100	10 / J / 1/10W	

R2666	ERJ3GEYJ100	10 / J / 1/10W	
R2667	ERJ3GEYJ100	10 / J / 1/10W	
R2668	ERJ3GEYJ100	10 / J / 1/10W	
R2679	ERJ3GEY0R00	0-ohm Jumper	
R2682	ERJ3GEYJ472	4.7K / J / 1/10W	
R2683	ERJ3GEYJ472	4.7K / J / 1/10W	
R2685	ERJ3GEYJ472	4.7K / J / 1/10W	
R2686	ERJ3GEYJ472	4.7K / J / 1/10W	
R2687	ERJ3GEYJ472	4.7K / J / 1/10W	
R2689	ERJ3GEYJ470	47 / J / 1/10W	
R2690	ERJ3GEYJ470	47 / J / 1/10W	
R2691	ERJ3GEYJ220	22 / J / 1/10W	
R2692	ERJ3GEYJ220	22 / J / 1/10W	
R2700	ERJ3GEY0R00	0-ohm Jumper	
R2701	ERJ3GEYJ102	1K / J / 1/10W	
R2703	ERJ3GEY0R00	0-ohm Jumper	
R2707	ERJ3GEY0R00	0-ohm Jumper	
R2708	ERJ3GEYJ102	1K / J / 1/10W	
R2710	ERJ3GEY0R00	0-ohm Jumper	
R2714	ERJ3GEYJ102	1K / J / 1/10W	
Z2000	D0GZ220J0001	Resistor Array	
Z2001	D0GZ220J0001	Resistor Array	
Z2002	D0GZ220J0001	Resistor Array	
Z2003	D0GZ220J0001	Resistor Array	
Z2004	D0GZ220J0001	Resistor Array	
Z2005	D0GZ220J0001	Resistor Array	
Z2006	D0GZ220J0001	Resistor Array	
Z2007	D0GZ220J0001	Resistor Array	
Z2008	D0GZ220J0001	Resistor Array	
Z2009	D0GZ220J0001	Resistor Array	
Z2010	D0GZ220J0001	Resistor Array	
Z2011	D0GZ220J0001	Resistor Array	
Z2012	D0GZ220J0001	Resistor Array	
Z2013	D0GZ220J0001	Resistor Array	
Z2014	D0GZ220J0001	Resistor Array	
Z2015	D0GZ220J0001	Resistor Array	
Z2163	PJRAMNR14473	Resistor Array	
Z2164	PJRAMNR14473	Resistor Array	
Z2165	PJRAMNR14473	Resistor Array	

Z2166	PJRAMNR14473	Resistor Array	
Z2167	PJRAMNR14473	Resistor Array	
Z2168	PJRAMNR14473	Resistor Array	
Z2222	D1H810040003	Resistor Array	
Z2223	D1H810040003	Resistor Array	
Z2224	D1H810040003	Resistor Array	
Z2225	D1H810040003	Resistor Array	
Z2226	D1H810040003	Resistor Array	
Z2227	D1H810040003	Resistor Array	
Z2228	D1H810040003	Resistor Array	
Z2229	D1H810040003	Resistor Array	
Z2230	D1H810040003	Resistor Array	
Z2231	D1H810040003	Resistor Array	
Z2232	D1H810040003	Resistor Array	
Z2233	D1H810040003	Resistor Array	
Z2234	D1H810040003	Resistor Array	
Z2235	D1H810040003	Resistor Array	
Z2236	D1H810040003	Resistor Array	
Z2237	D1H810040003	Resistor Array	
Z2238	D1H810040003	Resistor Array	
Z2239	D1H810040003	Resistor Array	
Z2240	D1H810040003	Resistor Array	
Z2241	D1H810040003	Resistor Array	
Z2242	D1H810040003	Resistor Array	
Z2243	D1H810040003	Resistor Array	
Z2244	D1H810040003	Resistor Array	
Z2245	D1H810040003	Resistor Array	
Z2246	D1H810040003	Resistor Array	
Z2247	D1H810040003	Resistor Array	
Z2248	EXBV8VR000V	Resistor Array	
Z2249	EXBV8VR000V	Resistor Array	
Z2250	EXBV8VR000V	Resistor Array	
Z2251	EXBV8VR000V	Resistor Array	
Z2252	D1H810040003	Resistor Array	
Z2253	D1H810040003	Resistor Array	
Z2254	D1H810040003	Resistor Array	
Z2255	D1H810040003	Resistor Array	
Z2256	D1H810040003	Resistor Array	
Z2257	D1H810040003	Resistor Array	

Z2258	D1H810040003	Resistor Array	
Z2259	D1H810040003	Resistor Array	
Z2260	D1H810040003	Resistor Array	
Z2261	D1H810040003	Resistor Array	
Z2262	D1H810040003	Resistor Array	
Z2263	D1H810040003	Resistor Array	
Z2264	D1H810040003	Resistor Array	
Z2265	D1H810040003	Resistor Array	
Z2266	D1H810040003	Resistor Array	
Z2267	D1H810040003	Resistor Array	
Z2268	D1H810040003	Resistor Array	
Z2269	D1H810040003	Resistor Array	
Z2270	D1H810040003	Resistor Array	
Z2271	D1H810040003	Resistor Array	
Z2272	D1H810040003	Resistor Array	
Z2273	D1H810040003	Resistor Array	
Z2274	D1H810040003	Resistor Array	
Z2275	D1H810040003	Resistor Array	
Z2276	D1H810040003	Resistor Array	
Z2277	D1H810040003	Resistor Array	
Z2278	EXBV8VR000V	Resistor Array	
Z2279	EXBV8VR000V	Resistor Array	
Z2280	EXBV8VR000V	Resistor Array	
Z2281	EXBV8VR000V	Resistor Array	
Z2282	EXBV8VR000V	Resistor Array	
Z2283	EXBV8VR000V	Resistor Array	
Z2284	EXBV8VR000V	Resistor Array	
Z2285	EXBV8VR000V	Resistor Array	
Z2286	D1H810040003	Resistor Array	
Z2287	D1H810040003	Resistor Array	
Z2288	D1H810040003	Resistor Array	
Z2289	D1H810040003	Resistor Array	
Z2290	D1H810040003	Resistor Array	
Z2291	D1H810040003	Resistor Array	
Z2292	D1H810040003	Resistor Array	
Z2293	D1H810040003	Resistor Array	
Z2294	D1H810040003	Resistor Array	
Z2295	D1H810040003	Resistor Array	
Z2296	D1H810040003	Resistor Array	

Z2297	D1H810040003	Resistor Array	
Z2298	D1H810040003	Resistor Array	
Z2299	D1H810040003	Resistor Array	
Z2300	D1H810040003	Resistor Array	
Z2301	D1H810040003	Resistor Array	
Z2302	D1H810040003	Resistor Array	
Z2303	D1H810040003	Resistor Array	
Z2304	D1H810040003	Resistor Array	
Z2305	D1H810040003	Resistor Array	
Z2306	D1H810040003	Resistor Array	
Z2307	D1H810040003	Resistor Array	
Z2308	D1H810040003	Resistor Array	
Z2309	D1H810040003	Resistor Array	
Z2310	D1H810040003	Resistor Array	
Z2311	D1H810040003	Resistor Array	
Z2312	D1H810040003	Resistor Array	
Z2313	D1H810040003	Resistor Array	
Z2314	D1H810040003	Resistor Array	
Z2315	D1H810040003	Resistor Array	
CAPACITORS			
C2000	F2G1E4R70008	4.7 / M / 25V	
C2001	F2G0G2210002	220/M/4V	
C2002	ECUX1H101JCV	100p / J / 50V	
C2003	ECUX1H101JCV	100p / J / 50V	
C2004	ECUX1E104ZFV	0.1 / Z / 25V	
C2005	F2G1A1010013	100 / M / 10V	
C2006	ECUX1H101JCV	100p / J / 50V	
C2007	ECUX1E104ZFV	0.1 / Z / 25V	
C2008	ECUX1E104ZFV	0.1 / Z / 25V	
C2009	ECUX1H101JCV	100p / J / 50V	
C2010	ECUX1H101JCV	100p / J / 50V	
C2011	F2G1A1010013	100 / M / 10V	
C2012	ECUX1E104ZFV	0.1 / Z / 25V	
C2013	ECUX1E104ZFV	0.1 / Z / 25V	
C2014	F2G1E4R70008	4.7 / M / 25V	
C2015	F2G0G2210002	220/M/4V	
C2108	ECUX1E104ZFV	0.1 / Z / 25V	
C2109	ECUX1E104ZFV	0.1 / Z / 25V	
C2110	ECUX1E104ZFV	0.1 / Z / 25V	

C2111	ECUX1E104ZFV	0.1 / Z / 25V	
C2112	ECUX1E104ZFV	0.1 / Z / 25V	
C2113	ECUX1E104ZFV	0.1 / Z / 25V	
C2114	ECUX1E104ZFV	0.1 / Z / 25V	
C2115	ECUX1E104ZFV	0.1 / Z / 25V	
C2116	ECUX1E104ZFV	0.1 / Z / 25V	
C2117	ECUX1E104ZFV	0.1 / Z / 25V	
C2118	ECUX1E104ZFV	0.1 / Z / 25V	
C2119	ECUX1E104ZFV	0.1 / Z / 25V	
C2120	ECUX1H101JCV	100p / J / 50V	
C2121	ECUX1H101JCV	100p / J / 50V	
C2122	ECUX1E104ZFV	0.1 / Z / 25V	
C2123	ECUX1H101JCV	100p / J / 50V	
C2124	ECUX1E104ZFV	0.1 / Z / 25V	
C2125	ECUX1H101JCV	100p / J / 50V	
C2126	ECUX1E104ZFV	0.1 / Z / 25V	
C2127	ECUX1H101JCV	100p / J / 50V	
C2128	ECUX1E104ZFV	0.1 / Z / 25V	
C2129	ECUX1H101JCV	100p / J / 50V	
C2130	ECUX1E104ZFV	0.1 / Z / 25V	
C2131	ECUX1H101JCV	100p / J / 50V	
C2132	ECUX1E104ZFV	0.1 / Z / 25V	
C2133	ECUX1H101JCV	100p / J / 50V	
C2134	ECUX1E104ZFV	0.1 / Z / 25V	
C2135	ECUX1H101JCV	100p / J / 50V	
C2136	ECUX1E104ZFV	0.1 / Z / 25V	
C2137	ECUX1H101JCV	100p / J / 50V	
C2138	ECUX1E104ZFV	0.1 / Z / 25V	
C2139	ECUX1H101JCV	100p / J / 50V	
C2140	ECUX1E104ZFV	0.1 / Z / 25V	
C2141	ECUX1H101JCV	100p / J / 50V	
C2142	ECUX1E104ZFV	0.1 / Z / 25V	
C2143	ECUX1E104ZFV	0.1 / Z / 25V	
C2144	ECUX1E104ZFV	0.1 / Z / 25V	
C2145	ECUX1H101JCV	100p / J / 50V	
C2146	ECUX1E104ZFV	0.1 / Z / 25V	
C2147	ECUX1E104ZFV	0.1 / Z / 25V	
C2148	ECUX1E104ZFV	0.1 / Z / 25V	
C2149	ECUX1H101JCV	100p / J / 50V	

C2150	ECUX1H101JCV	100p / J / 50V	
C2151	ECUX1H101JCV	100p / J / 50V	
C2152	ECUX1E104ZFV	0.1 / Z / 25V	
C2153	ECUX1E104ZFV	0.1 / Z / 25V	
C2154	ECUX1H101JCV	100p / J / 50V	
C2155	ECUX1H101JCV	100p / J / 50V	
C2227	ECUX1E104ZFV	0.1 / Z / 25V	
C2228	ECUX1E104ZFV	0.1 / Z / 25V	
C2229	ECUX1E104ZFV	0.1 / Z / 25V	
C2230	ECUX1E104ZFV	0.1 / Z / 25V	
C2231	ECUX1E104ZFV	0.1 / Z / 25V	
C2232	ECUX1E104ZFV	0.1 / Z / 25V	
C2233	ECUX1E104ZFV	0.1 / Z / 25V	
C2234	ECUX1E104ZFV	0.1 / Z / 25V	
C2235	ECUX1E104ZFV	0.1 / Z / 25V	
C2236	ECUX1E104ZFV	0.1 / Z / 25V	
C2237	ECUX1E104ZFV	0.1 / Z / 25V	
C2238	ECUX1E104ZFV	0.1 / Z / 25V	
C2239	ECUX1H101JCV	100p / J / 50V	
C2240	ECUX1H101JCV	100p / J / 50V	
C2241	ECUX1E104ZFV	0.1 / Z / 25V	
C2242	ECUX1H101JCV	100p / J / 50V	
C2243	ECUX1E104ZFV	0.1 / Z / 25V	
C2244	ECUX1H101JCV	100p / J / 50V	
C2245	ECUX1E104ZFV	0.1 / Z / 25V	
C2246	ECUX1H101JCV	100p / J / 50V	
C2247	ECUX1E104ZFV	0.1 / Z / 25V	
C2248	ECUX1H101JCV	100p / J / 50V	
C2249	ECUX1E104ZFV	0.1 / Z / 25V	
C2250	ECUX1H101JCV	100p / J / 50V	
C2251	ECUX1E104ZFV	0.1 / Z / 25V	
C2252	ECUX1H101JCV	100p / J / 50V	
C2253	ECUX1E104ZFV	0.1 / Z / 25V	
C2254	ECUX1H101JCV	100p / J / 50V	
C2255	ECUX1E104ZFV	0.1 / Z / 25V	
C2256	ECUX1H101JCV	100p / J / 50V	
C2257	ECUX1E104ZFV	0.1 / Z / 25V	
C2258	ECUX1H101JCV	100p / J / 50V	
C2259	ECUX1E104ZFV	0.1 / Z / 25V	

C2260	ECUX1H101JCV	100p / J / 50V	
C2261	ECUX1E104ZFV	0.1 / Z / 25V	
C2262	ECUX1E104ZFV	0.1 / Z / 25V	
C2263	ECUX1E104ZFV	0.1 / Z / 25V	
C2264	ECUX1H101JCV	100p / J / 50V	
C2265	ECUX1E104ZFV	0.1 / Z / 25V	
C2266	ECUX1E104ZFV	0.1 / Z / 25V	
C2267	ECUX1E104ZFV	0.1 / Z / 25V	
C2268	ECUX1H101JCV	100p / J / 50V	
C2269	ECUX1H101JCV	100p / J / 50V	
C2270	ECUX1H101JCV	100p / J / 50V	
C2271	ECUX1E104ZFV	0.1 / Z / 25V	
C2272	ECUX1E104ZFV	0.1 / Z / 25V	
C2273	ECUX1H101JCV	100p / J / 50V	
C2274	ECUX1H101JCV	100p / J / 50V	
C2365	ECUX1E104ZFV	0.1 / Z / 25V	
C2366	ECUX1E104ZFV	0.1 / Z / 25V	
C2367	ECUX1E104ZFV	0.1 / Z / 25V	
C2368	ECUX1E104ZFV	0.1 / Z / 25V	
C2369	ECUX1E104ZFV	0.1 / Z / 25V	
C2370	ECUX1E104ZFV	0.1 / Z / 25V	
C2371	ECUX1E104ZFV	0.1 / Z / 25V	
C2372	ECUX1E104ZFV	0.1 / Z / 25V	
C2373	ECUX1E104ZFV	0.1 / Z / 25V	
C2374	ECUX1H101JCV	100p / J / 50V	
C2375	ECUX1H101JCV	100p / J / 50V	
C2376	ECUX1H101JCV	100p / J / 50V	
C2377	ECUX1E104ZFV	0.1 / Z / 25V	
C2378	ECUX1E104ZFV	0.1 / Z / 25V	
C2379	ECUX1E104ZFV	0.1 / Z / 25V	
C2380	ECUX1H101JCV	100p / J / 50V	
C2381	ECUX1H101JCV	100p / J / 50V	
C2382	ECUX1H101JCV	100p / J / 50V	
C2383	ECUX1E104ZFV	0.1 / Z / 25V	
C2384	ECUX1E104ZFV	0.1 / Z / 25V	
C2385	ECUX1H101JCV	100p / J / 50V	
C2386	ECUX1H101JCV	100p / J / 50V	
C2387	ECUX1E104ZFV	0.1 / Z / 25V	
C2388	ECUX1E104ZFV	0.1 / Z / 25V	

C2389	ECUX1E104ZFV	0.1 / Z / 25V	
C2390	ECUX1H101JCV	100p / J / 50V	
C2391	ECUX1H101JCV	100p / J / 50V	
C2392	ECUX1H101JCV	100p / J / 50V	
C2393	ECUX1E104ZFV	0.1 / Z / 25V	
C2394	ECUX1E104ZFV	0.1 / Z / 25V	
C2395	ECUX1E104ZFV	0.1 / Z / 25V	
C2396	ECUX1H101JCV	100p / J / 50V	
C2397	ECUX1E104ZFV	0.1 / Z / 25V	
C2398	ECUX1E104ZFV	0.1 / Z / 25V	
C2399	ECUX1H101JCV	100p / J / 50V	
C2400	ECUX1E104ZFV	0.1 / Z / 25V	
C2401	ECUX1E104ZFV	0.1 / Z / 25V	
C2402	ECUX1E104ZFV	0.1 / Z / 25V	
C2403	ECUX1E104ZFV	0.1 / Z / 25V	
C2404	ECUX1E104ZFV	0.1 / Z / 25V	
C2405	ECUX1H101JCV	100p / J / 50V	
C2406	ECUX1E104ZFV	0.1 / Z / 25V	
C2407	ECUX1E104ZFV	0.1 / Z / 25V	
C2408	ECUX1E104ZFV	0.1 / Z / 25V	
C2409	ECUX1H101JCV	100p / J / 50V	
C2410	ECUX1H101JCV	100p / J / 50V	
C2411	ECUX1E104ZFV	0.1 / Z / 25V	
C2412	ECUX1E104ZFV	0.1 / Z / 25V	
C2413	ECUX1H101JCV	100p / J / 50V	
C2414	ECUX1H101JCV	100p / J / 50V	
C2415	ECUX1E104ZFV	0.1 / Z / 25V	
C2416	ECUX1E104ZFV	0.1 / Z / 25V	
C2417	ECUX1E104ZFV	0.1 / Z / 25V	
C2418	ECUX1H101JCV	100p / J / 50V	
C2419	ECUX1H101JCV	100p / J / 50V	
C2420	ECUX1H101JCV	100p / J / 50V	
C2421	ECUX1E104ZFV	0.1 / Z / 25V	
C2422	ECUX1E104ZFV	0.1 / Z / 25V	
C2423	ECUX1E104ZFV	0.1 / Z / 25V	
C2424	ECUX1H101JCV	100p / J / 50V	
C2425	ECUX1H101JCV	100p / J / 50V	
C2426	ECUX1H101JCV	100p / J / 50V	
C2427	ECUX1E104ZFV	0.1 / Z / 25V	

C2428	ECUX1E104ZFV	0.1 / Z / 25V	
C2429	F2G1A1010013	100 / M / 10V	
C2430	ECUX1H101JCV	100p / J / 50V	
C2431	ECUX1E104ZFV	0.1 / Z / 25V	
C2432	ECUX1H101JCV	100p / J / 50V	
C2433	ECUX1E104ZFV	0.1 / Z / 25V	
C2434	ECUX1H101JCV	100p / J / 50V	
C2435	ECUX1E104ZFV	0.1 / Z / 25V	
C2436	ECUX1H101JCV	100p / J / 50V	
C2437	ECUX1E104ZFV	0.1 / Z / 25V	
C2438	ECUX1H101JCV	100p / J / 50V	
C2439	ECUX1E104ZFV	0.1 / Z / 25V	
C2440	ECUX1H101JCV	100p / J / 50V	
C2441	ECUX1E104ZFV	0.1 / Z / 25V	
C2442	ECUX1H101JCV	100p / J / 50V	
C2443	ECUX1H101JCV	100p / J / 50V	
C2444	ECUX1E104ZFV	0.1 / Z / 25V	
C2445	ECUX1H101JCV	100p / J / 50V	
C2446	ECUX1E104ZFV	0.1 / Z / 25V	
C2447	F2G1A1010013	100 / M / 10V	
C2448	ECUX1H470JCV	47p / J / 50V	
C2449	ECUX1H101JCV	100p / J / 50V	
C2450	ECUX1E104ZFV	0.1 / Z / 25V	
C2451	ECUX1H470JCV	47p / J / 50V	
C2452	ECUX1H470JCV	47p / J / 50V	
C2453	ECUX1E104ZFV	0.1 / Z / 25V	
C2454	ECUX1H103KBV	0.01 / K / 50V	
C2455	ECUX1H102KBV	1000p / K / 50V	
C2456	ECUX1H102KBV	1000p / K / 50V	
C2457	ECUX1E104ZFV	0.1 / Z / 25V	
C2458	ECUX1H101JCV	100p / J / 50V	
C2459	ECUX1H101JCV	100p / J / 50V	
C2460	ECUX1E104ZFV	0.1 / Z / 25V	
C2461	ECUX1E104ZFV	0.1 / Z / 25V	
C2462	ECUX1E104ZFV	0.1 / Z / 25V	
C2463	ECUX1E104ZFV	0.1 / Z / 25V	
C2464	F2G1E4R70008	4.7 / M / 25V	
C2465	F2G1E4R70008	4.7 / M / 25V	
C2466	F2G1E4R70008	4.7 / M / 25V	

C2467	ECUV1H222KBV	2200p / K / 50V	
C2468	ECUX1C224ZFV	0.22 / Z / 16V	
C2469	ECUX1H120JCV	12p / J / 50V	
C2470	ECUX1H101JCV	100p / J / 50V	
C2471	F2G1A1010013	100 / M / 10V	
C2472	ECUX1E104ZFV	0.1 / Z / 25V	
C2473	ECUX1H102KBV	1000p / K / 50V	
C2474	ECUX1E104ZFV	0.1 / Z / 25V	
C2475	ECUX1E104ZFV	0.1 / Z / 25V	
C2476	ECUX1E104ZFV	0.1 / Z / 25V	
C2477	ECUX1E104ZFV	0.1 / Z / 25V	
C2478	ECUX1E104ZFV	0.1 / Z / 25V	
C2479	ECUX1H102KBV	1000p / K / 50V	
C2480	ECUX1E104ZFV	0.1 / Z / 25V	
C2481	ECUX1E104ZFV	0.1 / Z / 25V	
C2482	ECUX1H102KBV	1000p / K / 50V	
C2483	ECUX1E104ZFV	0.1 / Z / 25V	
C2484	ECUX1E104ZFV	0.1 / Z / 25V	
C2485	ECUX1H102KBV	1000p / K / 50V	
C2486	ECUX1E104ZFV	0.1 / Z / 25V	
C2487	ECUX1E104ZFV	0.1 / Z / 25V	
C2488	ECUX1H102KBV	1000p / K / 50V	
C2489	ECUX1E104ZFV	0.1 / Z / 25V	
C2490	ECUX1H102KBV	1000p / K / 50V	
C2491	ECUX1E104ZFV	0.1 / Z / 25V	
C2492	ECUX1H102KBV	1000p / K / 50V	
C2493	ECUX1E104ZFV	0.1 / Z / 25V	
C2494	ECUX1E104ZFV	0.1 / Z / 25V	
C2495	ECUX1H102KBV	1000p / K / 50V	
C2496	ECUX1H102KBV	1000p / K / 50V	
C2497	ECUX1E104ZFV	0.1 / Z / 25V	
C2498	ECUX1H102KBV	1000p / K / 50V	
C2499	ECUX1E104ZFV	0.1 / Z / 25V	
C2500	ECUX1H102KBV	1000p / K / 50V	
C2501	ECUX1E104ZFV	0.1 / Z / 25V	
C2502	ECUX1H102KBV	1000p / K / 50V	
C2503	ECUX1E104ZFV	0.1 / Z / 25V	
C2504	ECUX1H102KBV	1000p / K / 50V	
C2505	ECUX1E104ZFV	0.1 / Z / 25V	

C2506	ECUX1H101JCV	100p / J / 50V	
C2507	ECUX1H102KBV	1000p / K / 50V	
C2508	ECUX1E104ZFV	0.1 / Z / 25V	
C2509	ECUX1H102KBV	1000p / K / 50V	
C2510	ECUX1E104ZFV	0.1 / Z / 25V	
C2511	ECUX1H102KBV	1000p / K / 50V	
C2512	F2G1A1010013	100 / M / 10V	
C2513	ECUX1H101JCV	100p / J / 50V	
C2514	ECUX1H101JCV	100p / J / 50V	
C2515	ECUX1H101JCV	100p / J / 50V	
C2516	ECUX1E104ZFV	0.1 / Z / 25V	
C2517	ECUX1H101JCV	100p / J / 50V	
C2518	ECUX1E104ZFV	0.1 / Z / 25V	
C2519	ECUX1H101JCV	100p / J / 50V	
C2520	ECUX1E104ZFV	0.1 / Z / 25V	
C2521	ECUX1H101JCV	100p / J / 50V	
C2522	ECUX1E104ZFV	0.1 / Z / 25V	
C2523	ECUX1H101JCV	100p / J / 50V	
C2524	ECUX1E104ZFV	0.1 / Z / 25V	
C2525	ECUX1H101JCV	100p / J / 50V	
C2526	ECUX1E104ZFV	0.1 / Z / 25V	
C2527	ECUX1H101JCV	100p / J / 50V	
C2528	ECUV1H150JCV	15p / J / 50V	
C2529	ECUV1H150JCV	15p / J / 50V	
C2530	ECUX1H102KBV	1000p / K / 50V	
C2531	ECJ1VB1C105K	1 / K / 16V	
C2532	ECUX1H101JCV	100p / J / 50V	
C2533	ECUX1E104ZFV	0.1 / Z / 25V	
C2534	ECUX1E104ZFV	0.1 / Z / 25V	
C2535	ECUX1H101JCV	100p / J / 50V	
C2536	ECUX1H101JCV	100p / J / 50V	
C2537	ECJ1VB1C105K	1 / K / 16V	
C2538	ECUX1H101JCV	100p / J / 50V	
C2539	ECUX1E104ZFV	0.1 / Z / 25V	
C2540	ECUX1H101JCV	100p / J / 50V	
C2541	ECUX1E104ZFV	0.1 / Z / 25V	
C2542	ECUX1E104ZFV	0.1 / Z / 25V	
C2543	ECUX1H101JCV	100p / J / 50V	
C2544	ECUX1H101JCV	100p / J / 50V	

C2545	ECUX1E104ZFB	0.1 / Z / 25V	
C2621	ECUX1H101JCV	100p / J / 50V	
C2654	ECUX1H101JCV	100p / J / 50V	
C2671	ECUX1E104ZFB	0.1 / Z / 25V	
C2672	ECUX1H101JCV	100p / J / 50V	
C2673	ECUX1E104ZFB	0.1 / Z / 25V	
C2674	ECUX1H101JCV	100p / J / 50V	
C2675	ECUX1E104ZFB	0.1 / Z / 25V	
C2676	ECUX1H101JCV	100p / J / 50V	
C2677	ECUX1E104ZFB	0.1 / Z / 25V	
C2678	ECUX1H101JCV	100p / J / 50V	
C2687	ECUX1H101JCV	100p / J / 50V	
C2688	ECUX1E104ZFB	0.1 / Z / 25V	
C2689	ECUX1H101JCV	100p / J / 50V	
C2690	ECUX1E104ZFB	0.1 / Z / 25V	
C2691	ECUX1H101JCV	100p / J / 50V	
C2692	ECUX1E104ZFB	0.1 / Z / 25V	
C2693	ECUX1H101JCV	100p / J / 50V	
C2694	ECUX1E104ZFB	0.1 / Z / 25V	
C2695	ECUX1H101JCV	100p / J / 50V	
C2696	ECUX1E104ZFB	0.1 / Z / 25V	
C2697	ECUX1H101JCV	100p / J / 50V	
C2698	ECUX1E104ZFB	0.1 / Z / 25V	
C2699	ECUX1H101JCV	100p / J / 50V	
C2700	ECUX1E104ZFB	0.1 / Z / 25V	
C2701	ECUX1H101JCV	100p / J / 50V	
C2702	ECUX1E104ZFB	0.1 / Z / 25V	
C2703	ECUX1H101JCV	100p / J / 50V	
C2704	ECUX1E104ZFB	0.1 / Z / 25V	
C2705	ECUX1H101JCV	100p / J / 50V	
C2706	ECUX1E104ZFB	0.1 / Z / 25V	
C2707	ECUX1H101JCV	100p / J / 50V	
C2708	ECUX1E104ZFB	0.1 / Z / 25V	
C2709	ECUX1H101JCV	100p / J / 50V	
C2710	ECUX1E104ZFB	0.1 / Z / 25V	
C2711	ECUX1H101JCV	100p / J / 50V	
C2712	ECUX1E104ZFB	0.1 / Z / 25V	
C2713	ECUX1H101JCV	100p / J / 50V	
C2714	ECUX1E104ZFB	0.1 / Z / 25V	

C2715	ECUX1H101JCV	100p / J / 50V	
C2716	ECUX1E104ZFV	0.1 / Z / 25V	
C2717	ECUX1H101JCV	100p / J / 50V	
C2718	ECUX1E104ZFV	0.1 / Z / 25V	
C2719	ECUX1H101JCV	100p / J / 50V	
C2720	ECUX1E104ZFV	0.1 / Z / 25V	
C2721	ECUX1H101JCV	100p / J / 50V	
C2722	ECUX1E104ZFV	0.1 / Z / 25V	
C2723	ECUX1H101JCV	100p / J / 50V	
C2724	ECUX1E104ZFV	0.1 / Z / 25V	
C2725	ECUX1H101JCV	100p / J / 50V	
C2726	F2G0G2210002	220/M/4V	
C2727	ECUX1E104ZFV	0.1 / Z / 25V	
C2728	ECUX1E104ZFV	0.1 / Z / 25V	
C2729	ECUX1H101JCV	100p / J / 50V	
C2730	ECUX1E104ZFV	0.1 / Z / 25V	
C2731	ECUX1H101JCV	100p / J / 50V	
C2732	ECUX1E104ZFV	0.1 / Z / 25V	
C2733	ECUX1H101JCV	100p / J / 50V	
C2734	ECUX1E104ZFV	0.1 / Z / 25V	
C2735	ECUX1E104ZFV	0.1 / Z / 25V	
C2736	F2G0G2210002	220/M/4V	
C2737	ECUX1H101JCV	100p / J / 50V	
C2738	ECUX1H102KBV	1000p / K / 50V	
C2739	ECUX1E104ZFV	0.1 / Z / 25V	
C2740	ECUX1E104ZFV	0.1 / Z / 25V	
C2741	ECUX1H101JCV	100p / J / 50V	
C2742	ECUX1H101JCV	100p / J / 50V	
C2743	ECUX1E104ZFV	0.1 / Z / 25V	
C2744	ECUX1E104ZFV	0.1 / Z / 25V	
C2745	ECUX1H101JCV	100p / J / 50V	
C2746	ECUX1H101JCV	100p / J / 50V	
C2747	ECUX1E104ZFV	0.1 / Z / 25V	
C2748	ECUX1E104ZFV	0.1 / Z / 25V	
C2749	ECUX1H101JCV	100p / J / 50V	
C2750	ECUX1H101JCV	100p / J / 50V	
C2751	F2G0G2210002	220/M/4V	
C2752	ECUX1E104ZFV	0.1 / Z / 25V	
C2753	ECUX1E104ZFV	0.1 / Z / 25V	

C2754	ECUX1E104ZFV	0.1 / Z / 25V	
C2755	ECUX1E104ZFV	0.1 / Z / 25V	
C2756	ECUX1E104ZFV	0.1 / Z / 25V	
C2757	ECUX1H101JCV	100p / J / 50V	
C2758	ECUX1H101JCV	100p / J / 50V	
C2759	ECUX1H101JCV	100p / J / 50V	
C2760	ECUX1H101JCV	100p / J / 50V	
C2761	ECUX1H101JCV	100p / J / 50V	
C2762	ECUX1E104ZFV	0.1 / Z / 25V	
C2763	ECUX1E104ZFV	0.1 / Z / 25V	
C2764	ECUX1E104ZFV	0.1 / Z / 25V	
C2765	ECUX1E104ZFV	0.1 / Z / 25V	
C2766	ECUX1E104ZFV	0.1 / Z / 25V	
C2767	ECUX1H101JCV	100p / J / 50V	
C2768	ECUX1H101JCV	100p / J / 50V	
C2769	ECUX1H101JCV	100p / J / 50V	
C2770	ECUX1H101JCV	100p / J / 50V	
C2771	ECUX1H101JCV	100p / J / 50V	
C2772	ECUX1E104ZFV	0.1 / Z / 25V	
C2773	ECUX1E104ZFV	0.1 / Z / 25V	
C2774	ECUX1E104ZFV	0.1 / Z / 25V	
C2775	ECUX1E104ZFV	0.1 / Z / 25V	
C2776	ECUX1E104ZFV	0.1 / Z / 25V	
C2777	ECUX1H101JCV	100p / J / 50V	
C2778	ECUX1H101JCV	100p / J / 50V	
C2779	ECUX1H101JCV	100p / J / 50V	
C2780	ECUX1H101JCV	100p / J / 50V	
C2781	ECUX1H101JCV	100p / J / 50V	
C2782	ECUX1E104ZFV	0.1 / Z / 25V	
C2783	ECUX1E104ZFV	0.1 / Z / 25V	
C2784	ECUX1E104ZFV	0.1 / Z / 25V	
C2785	ECUX1E104ZFV	0.1 / Z / 25V	
C2786	ECUX1E104ZFV	0.1 / Z / 25V	
C2787	ECUX1H101JCV	100p / J / 50V	
C2788	ECUX1H101JCV	100p / J / 50V	
C2789	ECUX1H101JCV	100p / J / 50V	
C2790	ECUX1H101JCV	100p / J / 50V	
C2791	ECUX1H101JCV	100p / J / 50V	
C2792	ECUX1E104ZFV	0.1 / Z / 25V	

C2793	ECUX1E104ZFV	0.1 / Z / 25V	
C2794	ECUX1H101JCV	100p / J / 50V	
C2795	ECUX1H101JCV	100p / J / 50V	
C2796	ECUX1E104ZFV	0.1 / Z / 25V	
C2797	ECUX1H101JCV	100p / J / 50V	
C2798	ECUX1E104ZFV	0.1 / Z / 25V	
C2799	ECUX1H101JCV	100p / J / 50V	
C2800	ECUX1E104ZFV	0.1 / Z / 25V	
C2801	ECUX1H101JCV	100p / J / 50V	
C2802	ECUX1E104ZFV	0.1 / Z / 25V	
C2803	ECUX1H101JCV	100p / J / 50V	
C2804	ECUX1H102KBV	1000p / K / 50V	
C2805	F2G0G2210002	220/M/4V	
C2806	ECUX1E104ZFV	0.1 / Z / 25V	
C2807	ECUX1E104ZFV	0.1 / Z / 25V	
C2808	ECUX1H101JCV	100p / J / 50V	
C2809	ECUX1H101JCV	100p / J / 50V	
C2810	ECUX1E104ZFV	0.1 / Z / 25V	
C2811	ECUX1E104ZFV	0.1 / Z / 25V	
C2812	ECUX1H101JCV	100p / J / 50V	
C2813	ECUX1H101JCV	100p / J / 50V	
C2814	ECUX1E104ZFV	0.1 / Z / 25V	
C2815	ECUX1E104ZFV	0.1 / Z / 25V	
C2816	ECUX1H101JCV	100p / J / 50V	
C2817	ECUX1H101JCV	100p / J / 50V	
C2818	ECUX1E104ZFV	0.1 / Z / 25V	
C2819	ECUX1E104ZFV	0.1 / Z / 25V	
C2820	ECUX1E104ZFV	0.1 / Z / 25V	
C2821	ECUX1E104ZFV	0.1 / Z / 25V	
C2822	ECUX1H101JCV	100p / J / 50V	
C2823	ECUX1H101JCV	100p / J / 50V	
C2824	ECUX1H101JCV	100p / J / 50V	
C2825	ECUX1H101JCV	100p / J / 50V	
C2826	ECUX1E104ZFV	0.1 / Z / 25V	
C2827	ECUX1E104ZFV	0.1 / Z / 25V	
C2828	ECUX1E104ZFV	0.1 / Z / 25V	
C2829	ECUX1E104ZFV	0.1 / Z / 25V	
C2830	ECUX1H101JCV	100p / J / 50V	
C2831	ECUX1H101JCV	100p / J / 50V	

C2832	ECUX1H101JCV	100p / J / 50V	
C2833	ECUX1H101JCV	100p / J / 50V	
C2834	ECUX1E104ZFV	0.1 / Z / 25V	
C2835	ECUX1E104ZFV	0.1 / Z / 25V	
C2836	ECUX1E104ZFV	0.1 / Z / 25V	
C2837	ECUX1E104ZFV	0.1 / Z / 25V	
C2838	ECUX1H101JCV	100p / J / 50V	
C2839	ECUX1H101JCV	100p / J / 50V	
C2840	ECUX1H101JCV	100p / J / 50V	
C2841	ECUX1H101JCV	100p / J / 50V	
C2842	ECUX1E104ZFV	0.1 / Z / 25V	
C2843	ECUX1E104ZFV	0.1 / Z / 25V	
C2844	ECUX1E104ZFV	0.1 / Z / 25V	
C2845	ECUX1E104ZFV	0.1 / Z / 25V	
C2846	ECUX1H101JCV	100p / J / 50V	
C2847	ECUX1H101JCV	100p / J / 50V	
C2848	ECUX1H101JCV	100p / J / 50V	
C2849	ECUX1H101JCV	100p / J / 50V	
C2850	ECUX1E104ZFV	0.1 / Z / 25V	
C2851	ECUX1E104ZFV	0.1 / Z / 25V	
C2852	ECUX1H101JCV	100p / J / 50V	
C2853	ECUX1H101JCV	100p / J / 50V	
C2854	ECUX1E104ZFV	0.1 / Z / 25V	
C2855	ECUX1E104ZFV	0.1 / Z / 25V	
C2856	F2G0G2210002	220/M/4V	
C2857	ECUX1H821JCV	820p / J / 50V	
C2858	ECUX1E104ZFV	0.1 / Z / 25V	
C2859	ECUX1H101JCV	100p / J / 50V	
C2860	ECUX1E104ZFV	0.1 / Z / 25V	
C2861	ECUX1H101JCV	100p / J / 50V	
C2862	ECUX1E104ZFV	0.1 / Z / 25V	
C2863	ECUX1H101JCV	100p / J / 50V	
C2864	ECUX1E104ZFV	0.1 / Z / 25V	
C2865	ECUX1E104ZFV	0.1 / Z / 25V	
C2866	ECUX1E104ZFV	0.1 / Z / 25V	
C2867	ECUX1E104ZFV	0.1 / Z / 25V	
C2868	ECUX1H101JCV	100p / J / 50V	
C2869	ECUX1H101JCV	100p / J / 50V	
C2870	ECUX1H101JCV	100p / J / 50V	

C2871	ECUX1H101JCV	100p / J / 50V	
C2872	ECUX1E104ZFV	0.1 / Z / 25V	
C2873	ECUX1E104ZFV	0.1 / Z / 25V	
C2874	ECUX1E104ZFV	0.1 / Z / 25V	
C2875	ECUX1E104ZFV	0.1 / Z / 25V	
C2876	ECUX1H101JCV	100p / J / 50V	
C2877	ECUX1H101JCV	100p / J / 50V	
C2878	ECUX1H101JCV	100p / J / 50V	
C2879	ECUX1H101JCV	100p / J / 50V	
C2880	ECUX1E104ZFV	0.1 / Z / 25V	
C2881	ECUX1E104ZFV	0.1 / Z / 25V	
C2882	ECUX1E104ZFV	0.1 / Z / 25V	
C2883	ECUX1E104ZFV	0.1 / Z / 25V	
C2884	ECUX1H101JCV	100p / J / 50V	
C2885	ECUX1H101JCV	100p / J / 50V	
C2886	ECUX1H101JCV	100p / J / 50V	
C2887	ECUX1H101JCV	100p / J / 50V	
C2888	ECUX1E104ZFV	0.1 / Z / 25V	
C2889	ECUX1E104ZFV	0.1 / Z / 25V	
C2890	ECUX1E104ZFV	0.1 / Z / 25V	
C2891	ECUX1E104ZFV	0.1 / Z / 25V	
C2892	ECUX1H101JCV	100p / J / 50V	
C2893	ECUX1H101JCV	100p / J / 50V	
C2894	ECUX1H101JCV	100p / J / 50V	
C2895	ECUX1H101JCV	100p / J / 50V	
C2896	F2G1A1010013	100 / M / 10V	
C2897	F2G1C1000014	100 / M / 16V	
C2898	ECUX1E104ZFV	0.1 / Z / 25V	
C2899	ECUX1E104ZFV	0.1 / Z / 25V	
C2900	F2G1C1000014	100 / M / 16V	
C2901	ECUX1E104ZFV	0.1 / Z / 25V	
C2902	ECUX1H101JCV	100p / J / 50V	
C2903	ECUX1H101JCV	100p / J / 50V	
C2904	ECUX1E104ZFV	0.1 / Z / 25V	
C2905	ECUX1E104ZFV	0.1 / Z / 25V	
C2906	ECUX1H101JCV	100p / J / 50V	
C2907	ECUX1H101JCV	100p / J / 50V	
C2908	ECUX1E104ZFV	0.1 / Z / 25V	
C2909	ECUX1E104ZFV	0.1 / Z / 25V	

C2910	ECUX1H101JCV	100p / J / 50V	
C2911	ECUX1H101JCV	100p / J / 50V	
C2912	ECUX1E104ZFV	0.1 / Z / 25V	
C2913	ECUX1H101JCV	100p / J / 50V	
C2914	ECUX1H101JCV	100p / J / 50V	
C2921	F2G0G2210002	220 / M / 4V	
C2922	F2G0G2210002	220 / M / 4V	
C2923	F2G0G2210002	220 / M / 4V	
C2924	F2G0G2210002	220 / M / 4V	
C2925	F2G0G2210002	220 / M / 4V	
COILS			
L2015	BLM11A601SPT	Core	
L2016	BLM11A601SPT	Core	
L2017	BLM11A601SPT	Core	
L2018	BLM11A601SPT	Core	
L2019	BLM11A601SPT	Core	
L2020	BLM11A601SPT	Core	
L2027	BLM11A601SPT	Core	
L2028	BLM11A601SPT	Core	
L2029	BLM11A601SPT	Core	
L2030	BLM11A601SPT	Core	
L2031	BLM11A601SPT	Core	
L2032	BLM11A601SPT	Core	
L2048	BLM11A601SPT	Core	
L2049	BLM11A601SPT	Core	
L2050	BLM11A601SPT	Core	
L2051	BLM11A601SPT	Core	
L2052	BLM11A601SPT	Core	
L2053	BLM11A601SPT	Core	
L2054	BLM11A601SPT	Core	
L2055	BLM11A601SPT	Core	
L2056	BLM11A601SPT	Core	
L2057	BLM11A601SPT	Core	
L2058	BLM11A601SPT	Core	
L2059	BLM11A601SPT	Core	
L2060	BLM11A601SPT	Core	
L2061	BLM11A601SPT	Core	
L2062	BLM11A601SPT	Core	
L2063	BLM11A601SPT	Core	

L2064	BLM11A601SPT	Core	
L2065	BLM11A601SPT	Core	
L2066	BLM11A601SPT	Core	
L2067	BLM11A601SPT	Core	
L2068	BLM11A601SPT	Core	
L2069	BLM11A601SPT	Core	
L2070	BLM11A601SPT	Core	
L2085	BLM11A601SPT	Core	
L2087	BLM11A601SPT	Core	
L2088	BLM11A601SPT	Core	
L2089	BLM11A601SPT	Core	
L2090	BLM11A601SPT	Core	
L2100	BLM11A601SPT	Core	
L2101	BLM11A601SPT	Core	
L2102	BLM11A601SPT	Core	
L2103	BLM11A601SPT	Core	
L2104	BLM11A601SPT	Core	
L2105	BLM11A601SPT	Core	
L2106	BLM11A601SPT	Core	
L2108	BLM11A601SPT	Core	
L2109	BLM11A601SPT	Core	
L2110	BLM11A601SPT	Core	
L2111	BLM11A601SPT	Core	
L2112	BLM11A601SPT	Core	
L2113	BLM11A601SPT	Core	
DIODES			
D2005	RB050L40TE25	Diode	
D2006	BR1102W	LED	
D2007	BR1102W	LED	
D2008	BR1102W	LED	
D2009	BR1102W	LED	
TRANSISTORS			
Q2002	PJVIDTC114EK	Transistor	
Q2003	2SJ506STR	Transistor	
Q2004	B1GBCFLL0002	Transistor	
Q2005	B1GBCFLL0002	Transistor	
Q2006	B1GBCFLL0002	Transistor	
Q2007	B1GBCFLL0002	Transistor	
Q2008	B1GBCFLL0002	Transistor	

ICs			
IC2000	UPC29M33T	IC, Regulator	
IC2005	C0CBAAG00008	IC, Regulator	
IC2006	C3ABPG000140	IC, D RAM	
IC2007	C3ABPG000140	IC, D RAM	
IC2008	C3ABPG000140	IC, D RAM	
IC2009	C0CBAAG00008	IC, Regulator	
IC2010	C3ABPG000140	IC, D RAM	
IC2011	C3ABPG000140	IC, D RAM	
IC2012	C3ABPG000140	IC, D RAM	
IC2018	C3ABQG000034	IC, SD RAM	
IC2019	C3ABQG000034	IC, SD RAM	
IC2020	C3ABQG000034	IC, SD RAM	
IC2021	C3ABQG000034	IC, SD RAM	
IC2022	H1Z8005B0001	Oscillator	
IC2023	H1Z9505B0001	Oscillator	
IC2024	H1Z1006B0001	Oscillator	
IC2025	C1ZBZ0002046	IC	
IC2026	SM530AYBD	IC	
IC2027	PI6C2509-133	IC	
IC2028	C0JBAZ001944	IC, CMOS Logic	
IC2029	C1DB00000906	IC	
IC2030	C1DB00000424	IC	
IC2031	C1DB00000971	IC	
IC2032	C0JBAZ002076	IC, CMOS Logic	
IC2033	C0JBAZ001411	IC, CMOS Logic	
IC2034	C0JBAQ000171	IC, CMOS Logic	
IC2045	C1ZBZ0002422	IC	
IC2046	C1ZBZ0002422	IC	
IC2047	C1ZBZ0002423	IC	
OTHERS			
CN2000	176381-6	Connector	
CN2007	390195-6	Connector	
CN2008	K1FB150B0040	Connector	
CN2009	K1FA104B0028	Connector	
CN2010	DF11-10DPDSA	Connector	
SW2003	K0ZZ00000431	Switch	
X2000	H0J200200002	Oscillator	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.3 DRIVE Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTOR			
R4001	ERJ3GEYJ220	22 / J / 1/10W	
R4002	ERJ3GEYJ220	22 / J / 1/10W	
R4003	ERJ3GEYJ472	4.7K / J / 1/10W	
R4004	ERJ3GEYJ152	1.5k / J / 1/10W	
R4005	ERJ3GEYJ222	2.2K / J / 1/10W	
R4006	ERJ3GEYJ472	4.7K / J / 1/10W	
R4007	ERJ3GEYJ392	3.9K / J / 1/10W	
R4008	ERJ3GEYJ103	10K / J / 1/10W	
R4016	ERJ3GEYJ103	10K / J / 1/10W	
R4017	ERJ3GEYJ103	10K / J / 1/10W	
R4018	ERJ3GEYJ103	10K / J / 1/10W	
R4019	ERJ3GEYJ103	10K / J / 1/10W	
R4020	ERJ3GEYJ103	10K / J / 1/10W	
R4021	ERJ3GEYJ220	22 / J / 1/10W	
R4022	ERJ3GEYJ220	22 / J / 1/10W	
R4023	ERJ3GEYJ220	22 / J / 1/10W	
R4024	ERJ3GEYJ220	22 / J / 1/10W	
R4025	ERJ3GEYJ220	22 / J / 1/10W	
R4026	ERJ3GEYJ220	22 / J / 1/10W	
R4027	ERJ3GEYJ121	120 / J / 1/10W	
R4028	ERJ3GEYJ101	100 / J / 1/10W	
R4029	ERJ3GEYJ121	120 / J / 1/10W	
R4030	ERJ3GEYJ101	100 / J / 1/10W	
R4031	ERJ3GEYJ121	120 / J / 1/10W	
R4032	ERJ3GEYJ101	100 / J / 1/10W	
R4033	ERJ3GEYJ220	22 / J / 1/10W	
R4034	ERJ3GEYJ220	22 / J / 1/10W	
R4035	ERJ3GEYJ220	22 / J / 1/10W	
R4036	ERJ3GEYJ220	22 / J / 1/10W	
R4037	ERJ3GEYJ220	22 / J / 1/10W	
R4038	ERJ3GEYJ220	22 / J / 1/10W	
R4039	ERJ3GEYJ220	22 / J / 1/10W	

R4040	ERJ3GEYJ220	22 / J / 1/10W	
R4041	ERJ3GEYJ220	22 / J / 1/10W	
R4042	ERJ3GEYJ220	22 / J / 1/10W	
R4043	ERJ3GEYJ220	22 / J / 1/10W	
R4044	ERJ3GEYJ220	22 / J / 1/10W	
R4045	ERJ3GEYJ220	22 / J / 1/10W	
R4046	ERJ3GEYJ220	22 / J / 1/10W	
R4047	ERJ3GEYJ220	22 / J / 1/10W	
R4051	ERJ3GEYJ220	22 / J / 1/10W	
R4052	ERJ3GEYJ220	22 / J / 1/10W	
R4053	ERJ3GEYJ220	22 / J / 1/10W	
R4054	ERJ3GEY0R00	0-ohm Jumper	
R4056	ERJ3GEYJ472	4.7K / J / 1/10W	
R4057	ERJ3GEYJ472	4.7K / J / 1/10W	
R4058	ERJ3GEYJ104	100K / J / 1/10W	
R4059	ERJ3GEYJ104	100K / J / 1/10W	
R4060	ERJ3GEYJ105	1000K / J / 1/10W	
R4061	ERJ3GEYJ105	1000K / J / 1/10W	
R4062	ERJ12RSJR10U	0.1 / J / 1/2W	
R4063	ERJ12RSJR10U	0.1 / J / 1/2W	
R4064	ERJ12RSJR10U	0.1 / J / 1/2W	
R4065	ERJ12RSJR10U	0.1 / J / 1/2W	
R4073	ERJ6ENF1051	1.05K / F / 1/10W	
R4074	ERJ6ENF1132	11.3K / F / 1/10W	
R4075	ERJ3GEY0R00	0-ohm Jumper	
R4077	ERJ3GEYJ100	10 / J / 1/10W	
R4078	ERJ3GEYJ100	10 / J / 1/10W	
R4079	ERJ3GEYJ100	10 / J / 1/10W	
R4080	ERJ3GEYJ180	18 / J / 1/10W	
R4081	ERJ3GEYJ180	18 / J / 1/10W	
CAPACITORS			
C4001	ECUX1E104ZFV	0.1 / Z / 25V	
C4002	ECUX1E104ZFV	0.1 / Z / 25V	
C4003	ECUX1E104ZFV	0.1 / Z / 25V	
C4004	F2G1A1010013	100 / M / 10V	
C4005	F2G1A1010013	100 / M / 10V	
C4006	F2G1A1010013	100 / M / 10V	
C4007	ECUX1E104ZFV	0.1 / Z / 25V	
C4008	ECUX1E104ZFV	0.1 / Z / 25V	

C4009	ECUX1E104ZFV	0.1 / Z / 25V	
C4010	EEEFC1V101P	100 / M / 35V	
C4011	EEEFC1V101P	100 / M / 35V	
C4012	EEEFC1V101P	100 / M / 35V	
C4013	EEEFC1V101P	100 / M / 35V	
C4014	EEEFC1V101P	100 / M / 35V	
C4015	EEEFC1V101P	100 / M / 35V	
C4016	EEEFC1V101P	100 / M / 35V	
C4019	ECUX1E104ZFV	0.1 / Z / 25V	
C4020	ECUX1E104ZFV	0.1 / Z / 25V	
C4021	ECUX1E104ZFV	0.1 / Z / 25V	
C4026	EEEFC1V101P	100 / M / 35V	
C4027	EEEFC1V101P	100 / M / 35V	
C4028	EEEFC1V101P	100 / M / 35V	
C4029	EEEFC1V101P	100 / M / 35V	
C4030	EEEFC1V101P	100 / M / 35V	
C4031	ECUX1H102KBV	1000p / K / 50V	
C4032	ECUX1H102KBV	1000p / K / 50V	
C4033	EEEFC1V101P	100 / M / 35V	
C4034	EEEFC1V101P	100 / M / 35V	
C4035	EEEFC1V101P	100 / M / 35V	
C4036	ECUX1H103KBV	0.01 / K / 50V	
C4037	ECUX1H103KBV	0.01 / K / 50V	
C4038	ECUX1H473ZFV	0.047 / Z / 50V	
C4039	ECUX1H473ZFV	0.047 / Z / 50V	
C4040	ECUX1H102KBV	1000p / K / 50V	
C4041	ECUX1H102KBV	1000p / K / 50V	
C4042	ECUX1H103KBV	0.01 / K / 50V	
C4043	ECUX1H103KBV	0.01 / K / 50V	
C4044	EEEFC1V101P	100 / M / 35V	
C4050	EEFCD0K330R	33 / M / 8V	
C4051	EEFCD0K330R	33 / M / 8V	
C4052	ECUX1H102KBV	1000p / K / 50V	
C4053	EEEFC1C221P	220 / M / 16V	
C4054	EEEFC1C221P	220 / M / 16V	
C4055	ECUX1H101JCV	100p / J / 50V	
C4056	ECUX1H100DCV	10p / D / 50V	
C4057	ECUX1H102KBV	1000p / K / 50V	
C4058	ECUX1H102KBV	1000p / K / 50V	

C4059	ECUX1H101JCV	100p / J / 50V	
C4060	ECUX1H101JCV	100p / J / 50V	
C4061	ECUX1H100DCV	10p / D / 50V	
C4062	ECUX1H100DCV	10p / D / 50V	
C4063	ECUX1H103KBV	0.01 / K / 50V	
C4064	ECUX1H103KBV	0.01 / K / 50V	
C4065	ECUX1E104ZFV	0.1 / Z / 25V	
C4066	ECUX1H102KBV	1000p / K / 50V	
C4067	ECUX1H102KBV	1000p / K / 50V	
C4074	ECUX1H102KBV	1000p / K / 50V	
C4075	ECUX1H102KBV	1000p / K / 50V	
C4076	ECUX1H102KBV	1000p / K / 50V	
C4077	ECUX1H102KBV	1000p / K / 50V	
C4078	ECUX1H102KBV	1000p / K / 50V	
C4079	ECUX1H102KBV	1000p / K / 50V	
C4080	ECUX1H102KBV	1000p / K / 50V	
C4081	ECUX1H102KBV	1000p / K / 50V	
COILS			
L4001	J0JKC0000010	Core	
L4002	J0JKC0000010	Core	
L4003	G1A680H00002	Choke Coil	
L4004	G1A220H00010	Choke Coil	
L4005	G1A220H00010	Choke Coil	
DIODES			
D4001	PJVDHZM18NB2	Diode	
D4002	MA132A	Diode	
D4003	B0BC01200027	Diode	
D4004	MA132A	Diode	
D4005	B0BC01200027	Diode	
D4006	MA132A	Diode	
D4007	B0BC01500012	Diode	
D4008	MA132A	Diode	
D4009	B0BC5R000020	Diode	
D4010	MA132A	Diode	
D4011	C0DBZFA00010	IC	
D4012	D1FS4A-4063	Diode	
D4013	MA132A	Diode	
D4014	MA132A	Diode	
D4015	D1FS4A-4063	Diode	

D4016	D1FS4A-4063	Diode	
D4017	MA132A	Diode	
D4018	B0BC5R000020	Diode	
TRANSISTORS			
Q4001	B1GBCFLL0002	Transistor	
Q4002	B1GBCFLL0002	Transistor	
Q4003	B1GBCFLL0002	Transistor	
Q4005	B1GDCFJJ0002	Transistor	
Q4007	2SC2412K	Transistor	
Q4008	B1GBCFLL0002	Transistor	
Q4009	B1GBCFLL0002	Transistor	
Q4010	B1GBCFLL0002	Transistor	
Q4011	B1GBCFLL0002	Transistor	
Q4012	B1GBCFLL0002	Transistor	
Q4013	B1GBCFLL0002	Transistor	
Q4014	B1GBCFLL0002	Transistor	
Q4015	2SC2412K	Transistor	
Q4016	2SC2412K	Transistor	
Q4017	2SC2412K	Transistor	
Q4020	B1GBCFLL0002	Transistor	
Q4021	B1DHJG000002	Transistor	
Q4023	B1GBCFLL0002	Transistor	
Q4024	B1GDCFJJ0002	Transistor	
ICs			
IC4001	C0GAN0000025	IC	
IC4002	C0GAN0000025	IC	
IC4003	C0GAJ0000035	IC	
IC4004	C0DBAMG00014	IC,DC-DC Converter	
IC4005	MD1421N-4072	IC,DC-DC Converter	
IC4006	MD1421N-4072	IC,DC-DC Converter	
OTHERS			
CN4001	K1MN36A00014	Connector	
CN4002	K1MN14A00087	Connector	
CN4003	K1KA10A00404	Connector	
CN4004	K1KA08B00238	Connector	
CN4005	K1KA02A00553	Connector	
CN4007	K1KA13A00127	Connector	
CN4008	K1KA14A00233	Connector	
CN4010	K1KA08B00237	Connector	

CN4017	K1KA04A00498	Connector	
F4001	K5H402A00010	Fuse	
F4002	K5H402A00010	Fuse	
F4003	K5H402A00010	Fuse	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.4 CARRIAGE RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R3018	ERJ3GEYJ331	330 / J / 1/10W	
R3019	ERJ3GEYJ331	330 / J / 1/10W	
R3020	ERJ3GEYJ331	330 / J / 1/10W	
R3021	ERJ3GEYJ331	330 / J / 1/10W	
R3022	ERJ3GEYJ331	330 / J / 1/10W	
R3023	ERJ3GEYJ331	330 / J / 1/10W	
R3024	ERJ3GEYJ331	330 / J / 1/10W	
R3025	ERJ3GEYJ331	330 / J / 1/10W	
R3026	ERJ3GEYJ331	330 / J / 1/10W	
R3027	ERJ3GEYJ331	330 / J / 1/10W	
R3028	ERJ3GEYJ331	330 / J / 1/10W	
R3029	ERJ3GEYJ331	330 / J / 1/10W	
R3030	ERJ3GEYJ331	330 / J / 1/10W	
R3031	ERJ3GEYJ331	330 / J / 1/10W	
R3032	ERJ3GEYJ331	330 / J / 1/10W	
R3033	ERJ3GEYJ331	330 / J / 1/10W	
CAPACITORS			
C3005	ECUX1H101JCV	100p / J / 50V	
C3006	ECUX1E104ZFV	0.1 / Z / 25V	
C3007	ECUX1H101JCV	100p / J / 50V	
C3008	ECUX1E104ZFV	0.1 / Z / 25V	
OTHERS			
CN3000	K1KA03A00465	Connector	
CN3001	K1MN40B00042	Connector	
CN3002	K1MN22B00097	Connector	
CN3003	K1MN40B00042	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.5 CIS RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R3002	ERJ3GEYJ221	220 / J / 1/10W	
R3003	ERJ3GEYJ221	220 / J / 1/10W	
R3004	ERJ3GEYJ221	220 / J / 1/10W	
R3005	ERJ3GEYJ221	220 / J / 1/10W	
R3006	ERJ3GEYJ221	220 / J / 1/10W	
R3007	ERJ3GEYJ221	220 / J / 1/10W	
R3008	ERJ3GEYJ221	220 / J / 1/10W	
R3009	ERJ3GEYJ221	220 / J / 1/10W	
R3010	ERJ3GEYJ221	220 / J / 1/10W	
R3011	ERJ3GEYJ221	220 / J / 1/10W	
R3012	ERJ3GEYJ221	220 / J / 1/10W	
R3013	ERJ3GEYJ221	220 / J / 1/10W	
R3014	ERJ3GEYJ221	220 / J / 1/10W	
R3015	ERJ3GEYJ221	220 / J / 1/10W	
R3016	ERJ3GEYJ221	220 / J / 1/10W	
R3017	ERJ3GEYJ221	220 / J / 1/10W	
CAPACITORS			
C3001	ECUX1H101JCV	100p / J / 50V	
C3002	ECUX1E104ZFV	0.1 / Z / 25V	
C3003	ECUX1H101JCV	100p / J / 50V	
C3004	ECUX1E104ZFV	0.1 / Z / 25V	
OTHERS			
CN3004	K1MN26A00064	Connector	
CN3005	K1MN24A00058	Connector	
CN3006	K1MN40B00042	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.6 OUTER CONVEYOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5004	ERDS2TJ101	100 / J / 1/4W	
R5005	ERDS2TJ101	100 / J / 1/4W	
R5006	ERDS2TJ472	4.7k / J / 1/4W	
R5007	ERDS2TJ223	22k / J / 1/4W	
R5008	ERDS2TJ472	4.7k / J / 1/4W	
R5012	ERDS2TJ223	22k / J / 1/4W	
R5019	ERDS2T0	0-ohm Jumper	
R5020	ERDS2TJ123	12k / J / 1/4W	
R5022	ERDS2TJ473	47k / J / 1/4W	
R5023	ERDS2TJ104	100k / J / 1/4W	
R5024	ERDS2TJ104	100k / J / 1/4W	
R5025	ERDS2TJ104	100k / J / 1/4W	
R5026	ERDS2TJ473	47k / J / 1/4W	
R5027	ERDS2TJ102	1k / J / 1/4W	
R5028	ERDS2TJ153	15k / J / 1/4W	
R5029	ERDS2TJ103	10k / J / 1/4W	
R5030	ERDS2TJ102	1k / J / 1/4W	
R5031	ERDS2TJ392	3.9k / J / 1/4W	
R5032	ERDS2TJ751T	750 / J / 1/4W	
R5033	ERDS2TJ152	1.5k / J / 1/4W	
CAPACITORS			
C5001	F1E1H1040017	0.1 / Z / 50V	
C5005	F1E1H1040017	0.1 / Z / 50V	
C5013	F1E1H1040017	0.1 / Z / 50V	
C5015	F1E1H1040017	0.1 / Z / 50V	
C5021	F1E1H1040017	0.1 / Z / 50V	
C5006	ECEA1CKS101	100 / M / 16V	
C5011	ECQB1H103JF3	0.01 / J / 50V	
C5012	ECEA1CKS101	100 / M / 16V	
C5014	ECQB1H103JF3	0.01 / J / 50V	
C5016	ECQB1H103JF3	0.01 / J / 50V	
C5017	ECQB1H103JF3	0.01 / J / 50V	

C5018	ECQB1H103JF3	0.01 / J / 50V	
C5019	ECQB1H103JF3	0.01 / J / 50V	
C5020	ECQB1H103JF3	0.01 / J / 50V	
C5022	ECEA1CKS101	100 / M / 16V	
DIODOE			
D5005	MA165	Diode	
TRANSISTORS			
Q5002	2SA1309A	Transistor	
Q5003	2SC3311A	Transistor	
ICs			
IC5002	C0AAGB000012	IC, Operational Amp.	
IC5004	NJM2082D	IC, Operational Amp.	
OTHERS			
CN5001	K1KA02A00551	Connector	
CN5002	K1KA03A00465	Connector	
CN5003	K1KA18A00090	Connector	
CN5004	K1MN30B00113	Connector	
TH5001	PB103AT	Thermistor	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.7 WAITING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5034	ERDS2TJ271	270/J/1/4W	
R5035	ERDS2TJ333	33k / J /1/4W	
CAPACITOR			
C5024	F1E1H1040017	0.1/Z/50V	
TRANSISTOR			
Q5004	2SA1309A	Transistor	
IC			
IC5005	B3NAB0000028	Photo Reflector	
OTHERS			
CN5006	K1KA03B00194	Connector	
	PBHR38X	Spacer	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.8 ENDING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5058	ERDS2TJ221	220 / J / 1/4W	
R5059	ERDS2TJ333	33k / J / 1/4W	
CAPACITOR			
C5037	F1E1H1040017	0.1 / Z / 50V	
TRANSISTOR			
Q5015	2SA1309A	Transistor	
IC			
IC5016	B3NAB0000028	Photo Reflector	
OTHERS			
CN5015	K1KA03B00194	Connector	
	PBHR38X	Spacer	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.9 HOPPER HOME DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5039	ERDS2TJ331	330 / J / 1/4W	
R5040	ERDS2TJ103	10k / J / 1/4W	
CAPACITOR			
C5026	F1E1H1040017	0.1 / Z / 50V	
TRANSISTOR			
Q5006	2SC3311A	Transistor	
IC			
IC5007	TLP832	Photo Interrupter	
OTHER			
CN5007	K1KA04B00220	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.10 SIZE DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5042	ERDS2TJ331	330 / J / 1/4W	
R5043	ERDS2TJ331	330 / J / 1/4W	
R5044	ERDS2TJ331	330 / J / 1/4W	
R5045	ERDS2TJ331	330 / J / 1/4W	
R5046	ERDS2TJ331	330 / J / 1/4W	
R5047	ERDS2TJ103	10k / J / 1/4W	
R5048	ERDS2TJ103	10k / J / 1/4W	
R5049	ERDS2TJ103	10k / J / 1/4W	
R5050	ERDS2TJ103	10k / J / 1/4W	
R5051	ERDS2TJ103	10k / J / 1/4W	
CAPACITORS			
C5027	F1E1H1040017	0.1 / Z / 50V	
C5028	F1E1H1040017	0.1 / Z / 50V	
C5029	F1E1H1040017	0.1 / Z / 50V	
C5030	F1E1H1040017	0.1 / Z / 50V	
C5031	F1E1H1040017	0.1 / Z / 50V	
TRANSISTORS			
Q5007	2SC3311A	Transistor	
Q5008	2SC3311A	Transistor	
Q5009	2SC3311A	Transistor	
Q5010	2SC3311A	Transistor	
Q5011	2SC3311A	Transistor	
ICs			
IC5008	TLP832	Photo Interrupter	
IC5009	TLP832	Photo Interrupter	
IC5010	TLP832	Photo Interrupter	
IC5011	TLP832	Photo Interrupter	
IC5012	TLP832	Photo Interrupter	
OTHERS			
CN5010	K1MN10B00133	Connector	
CN5011	K1KA04A00498	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.11 STARTING SENSOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5052	ERDS2TJ271	270 / J / 1/4W	
R5053	ERDS2TJ271	270 / J / 1/4W	
R5054	ERDS2TJ271	270 / J / 1/4W	
R5055	ERDS2TJ333	33k / J / 1/4W	
R5056	ERDS2TJ333	33k / J / 1/4W	
R5057	ERDS2TJ333	33k / J / 1/4W	
CAPACITOR			
C5035	F1E1H1040017	0.1 / Z / 50V	
TRANSISTORS			
Q5012	2SA1309A	Transistor	
Q5013	2SA1309A	Transistor	
Q5014	2SA1309A	Transistor	
ICs			
IC5013	B3NAB0000028	Photo Reflector	
IC5014	B3NAB0000028	Photo Reflector	
IC5015	B3NAB0000028	Photo Reflector	
OTHERS			
CN5012	K1KA05B00186	Connector	
	PBHR38X	Spacer	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.12 HOPPER RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
OTHERS			
CN5013	K1MN10B00133	Connector	
CN5014	K1KA10A00403	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.13 SENSOR RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5037	ERDS2TJ331	330 / J / 1/4W	
R5038	ERDS2TJ103	10k / J / 1/4W	
R5060	ERDS2TJ473	47k / J / 1/4W	
R5061	ERDS2TJ473	47k / J / 1/4W	
R5062	ERDS2TJ473	47k / J / 1/4W	
R5063	ERDS2TJ473	47k / J / 1/4W	
R5064	ERDS2TJ821	820 / J / 1/4W	
R5065	ERDS2TJ821	820 / J / 1/4W	
R5066	ERDS2TJ222	2.2k / J / 1/4W	
R5067	ERDS2TJ472	4.7k / J / 1/4W	
R5068	ERDS2TJ222	2.2k / J / 1/4W	
R5069	ERDS2TJ472	4.7k / J / 1/4W	
R5070	ERDS2TJ472	4.7k / J / 1/4W	
R5071	ERDS2TJ102	1k / J / 1/4W	
R5072	ERDS2TJ682	6.8k / J / 1/4W	
R5073	ERDS2TJ102	1k / J / 1/4W	
R5074	ERDS2TJ102	1k / J / 1/4W	
R5075	ERDS2TJ103	10k / J / 1/4W	
CAPACITORS			
C5025	F1E1H1040017	0.1 / Z / 50V	
C5038	F1E1H1040017	0.1 / Z / 50V	
C5039	F1E1H1040017	0.1 / Z / 50V	
C5040	F1B1H1030002	0.01 / Z / 50V	
C5041	F1B1H1030002	0.01 / Z / 50V	
C5042	F1E1H1040017	0.1 / Z / 50V	
C5043	F1E1H1040017	0.1 / Z / 50V	
C5044	F1E1H1040017	0.1 / Z / 50V	
C5045	ECEA1CKS101	100 / M / 16V	
C5046	ECEA1VKS100	10 / M / 35V	
TRANSISTORS			
Q5005	2SC3311A	Transistor	
Q5016	2SC3311A	Transistor	

Q5017	2SA1309A	Transistor	
Q5018	2SC3311A	Transistor	
Q5019	2SA1309A	Transistor	
Q5020	2SC3311A	Transistor	
Q5021	2SC3311A	Transistor	
Q5022	2SC3311A	Transistor	
Q5023	2SA1309A	Transistor	
Q5024	2SC3311A	Transistor	
ICs			
IC5006	TLP832	Photo Interrupter	
IC5017	PPVI74HCT04A	IC, CMOS	
OTHERS			
CN5016	K1KA03A00465	Connector	
CN5017	K1KA05A00350	Connector	
CN5018	K1KA04A00498	Connector	
CN5020	K1KA10A00403	Connector	
CN5021	K1KA02A00552	Connector	
CN5022	K1MN22A00066	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.14 POWER RELAY Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
OTHERS			
CN5025	K1KA14A00233	Connector	
CN5028	K1KA04A00499	Connector	
CN5029	K1KA03A00465	Connector	
CN5031	K1KA06A00409	Connector	
CN5032	K1KA07A00242	Connector	
CN5036	K1KA02A00553	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.15 PANEL Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5076	ERDS2TJ332	3.3k / J / 1/4W	
R5078	ERDS2TJ182	1.8k / J / 1/4W	
R5079	ERDS2TJ332	3.3k / J / 1/4W	
R5080	ERDS2TJ103	10k / J / 1/4W	
R5081	ERDS2TJ181	180k / J / 1/4W	
R5082	ERDS2TJ391	390 / J / 1/4W	
CAPACITORS			
C5047	F1E1H1040017	0.1 / Z / 50V	
C5048	F1E1H1040017	0.1 / Z / 50V	
C5049	F1B1H1030002	0.01 / Z / 50V	
C5050	ECQV1H224JL	0.22 / J / 50V	
TRANSISTORS			
Q5025	UN4213	Transistor	
Q5026	DTA143XSATP	Transistor	
Q5027	UN4213	Transistor	
Q5028	DTA143XSATP	Transistor	
Q5029	UN4213	Transistor	
DIODE			
D5006	B3AGA0000032	LED	
OTHERS			
BZ5001	PKM22EPP4002	Buzzer	
CN5023	K1KA08B00238	Connector	
SW5001	B3F-6122	Switch	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.16 DOCUMENT COVER DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5083	ERDS2TJ331	330 / J / 1/4W	
R5085	ERDS2TJ103	10k / J / 1/4W	
CAPACITOR			
C5051	F1E1H1040017	0.1 / Z / 50V	
TRANSISTOR			
Q5030	2SC3311A	Transistor	
IC			
IC5018	TLP832	Photo Interrupter	
OTHER			
CN5034	K1KA04B00220	Connector	

[TOP](#) [PREVIOUS](#) [NEXT](#)

15.17 CARRIAGE HOME DETECTOR Board

[TOP](#) [PREVIOUS](#) [NEXT](#)








Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R5084	ERDS2TJ331	330 / J / 1/4W	
R5086	ERDS2TJ103	10k / J / 1/4W	
CAPACITOR			
C5052	F1E1H1040017	0.1 / Z / 50V	
TRANSISTOR			
Q5031	2SC3311A	Transistor	
IC			
IC5019	TLP832	Photo Interrupter	
OTHER			
CN5035	K1KA03B00194	Connector	






[TOP](#) [PREVIOUS](#) [NEXT](#)










15.18 POWER Board




[TOP](#) [PREVIOUS](#)

Ref. No.	Part No.	Part Name & Description	Remarks
RESISTORS			
R801	ERDS1TJ684	680K / J / 1/2W	
R802	MPC710.22K	Resistor	
R803	MPC710.1K	Resistor	
R804	EROS2THF1803	180K / F / 1/4W	
R805	EROS2THF1803	180K / F / 1/4W	
R806	EROS2THF1803	180K / F / 1/4W	
R807	ER0S2THF3161	3.16K / F / 1/4W	
R808	ERDS2TJ124	120K / J / 1/4W	
R809	ERDS2TJ124	120K / J / 1/4W	
R810	ERDS2TJ223	22K / J / 1/4W	
R811	ERDS2TJ242	2.4K / J / 1/4W	
R812	EROS2THF1803	180K / F / 1/4W	
R813	EROS2THF1803	180K / F / 1/4W	
R814	EROS2THF1803	180K / F / 1/4W	
R815	EROS2THF2151	2.15K / F / 1/4W	
R816	EROS2THF1803	180K / F / 1/4W	
R817	EROS2THF1803	180K / F / 1/4W	
R818	EROS2THF1803	180K / F / 1/4W	
R819	ER0S2THF3161	3.16K / F / 1/4W	
R820	ERDS2TJ103	10K / J / 1/4W	
R821	ERDS2TJ105	1000K / J / 1/4W	
R822	ERDS2TJ334	330K / J / 1/4W	
R823	ERDS1TJ680	68 / J / 1/2W	
R824	ERDS2TJ103	10K / J / 1/4W	
R825	ERDS2TJ104	100K / J / 1/4W	
R826	ERDS2TJ181	180 / J / 1/4W	
R827	ERDS2TJ104	100K / J / 1/4W	
R828	ERDS2TJ223	22K / J / 1/4W	
R829	ERDS2TJ270	27 / J / 1/4W	
R830	ERG2SJ104	100K / J / 2W	
R831	ERDS2TJ203	20K / J / 1/4W	
R832	ERDS2TJ472	4.7K / J / 1/4W	

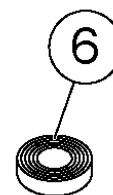
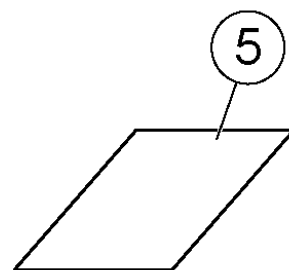
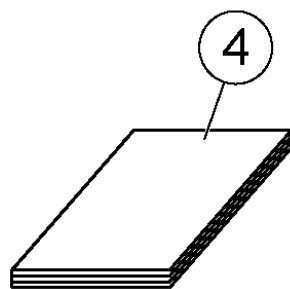
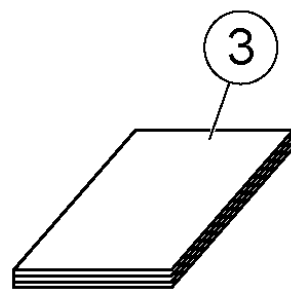
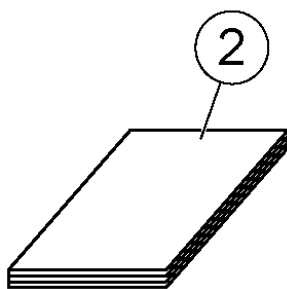
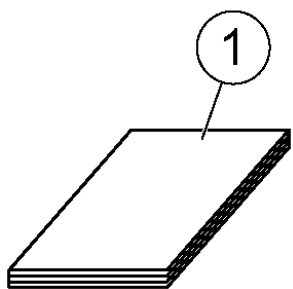
R833	EROS2THF1152	11.5K / F / 1/4W	
R834	ERDS2TJ101	100 / J / 1/4W	
R835	ERDS2TJ104	100K / J / 1/4W	
R836	ERDS2TJ821	820 / J / 1/4W	
R841	ER0S2THF1001	1K / F / 1/4W	
R842	EROS2THF8871	8.87K / F / 1/4W	
R843	ERDS2TJ242	2.4K / J / 1/4W	
R844	ERDS2TJ102T	1K / J / 1/4W	
R845	ERDS2TJ272	2.7K / J / 1/4W	
R861	ERDS2TJ472	4.7K / J / 1/4W	
R862	ERDS2TJ103	10K / J / 1/4W	
R863	ERDS2TJ472	4.7K / J / 1/4W	
R864	ERDS2TJ472	4.7K / J / 1/4W	
R865	ERDS2TJ103	10K / J / 1/4W	
R866	ERDS2TJ103	10K / J / 1/4W	
R881	ERDS2TJ101	100 / J / 1/4W	
R882	ERDS2TJ103	10K / J / 1/4W	
R883	ERDS1TJ470	47 / J / 1/2W	
R884	ERDS2TJ242	2.4K / J / 1/4W	
R885	ERDS2TJ472	4.7K / J / 1/4W	
R886	ERDS2TJ101	100 / J / 1/4W	
CAPACITORS			
C801	ECQU2A684MLA	0.68 / M / 100V	
C802	ECQU2A684MLA	0.68 / M / 100V	
C803	PJCK25222MDT	2200p / M / 250V	
C804	PJCK25222MDT	2200p / M / 250V	
C805	ECQE2W474KC	0.47 / K / 450V	
C806	ECQE4103KF3	0.01 / K / 400V	
C807	F2B2W2210007	220p / M / 450V	
C808	PJCK25472MDT	4700p / M / 50V	
C809	ECQB1H333JF3	0.033 / J / 50V	
C810	ECQB1H471JF	470p / J / 50V	
C812	ECQV1H104JL3	0.1 / J / 50V	
C813	ECQB1H333JF3	0.033 / J / 50V	
C814	PJCE1H100MCH	10p / M / 50V	
C815	ECQV1H104JL3	0.1 / J / 50V	
C816	35YXF100M	100p / M / 35V	

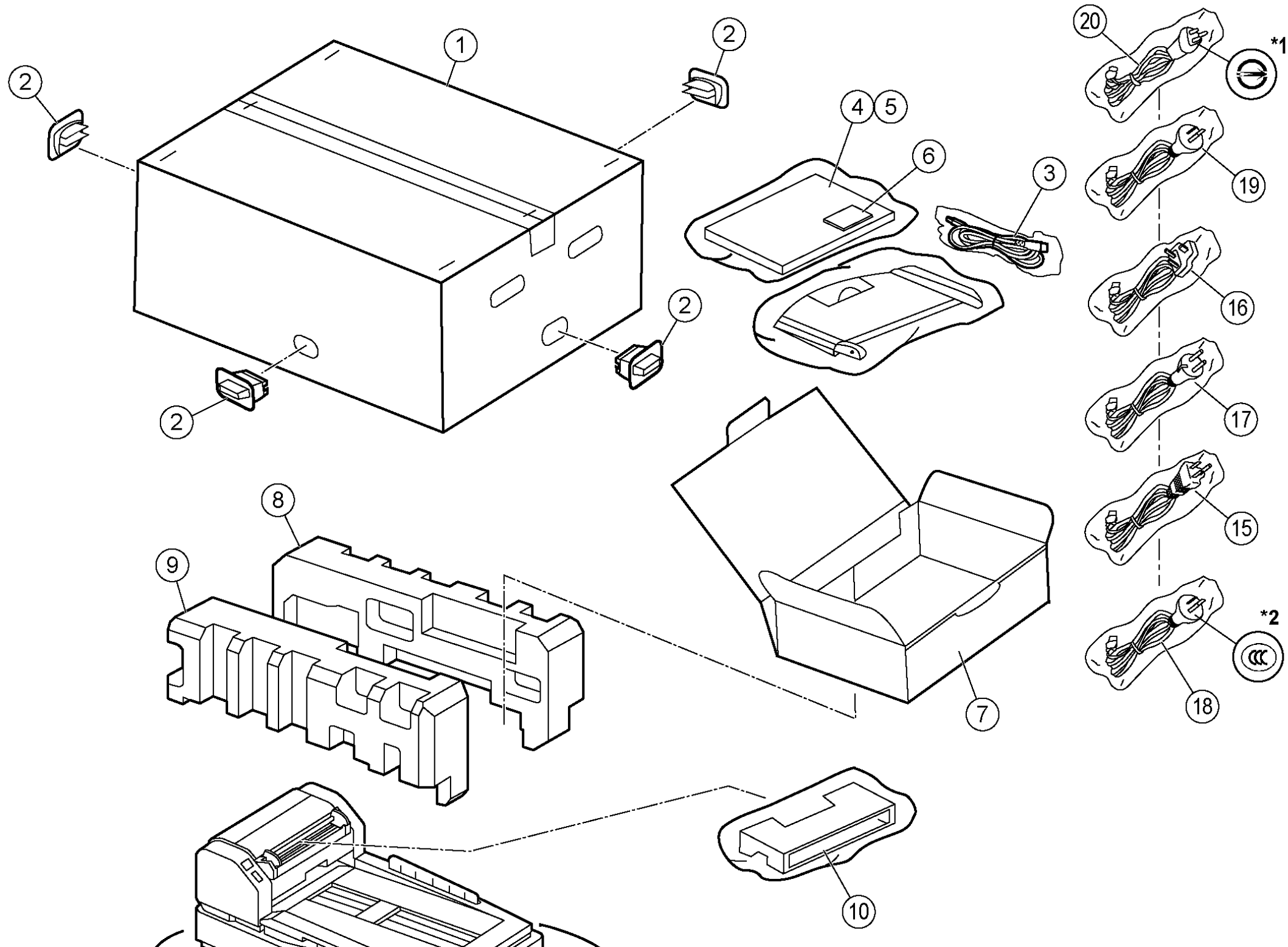
C817	ECQB1H471JF	470p / J / 50V	
C818	ECQB1H103JF3	0.01 / J / 50V	
C819	ECQB1H472JF3	4700p / J / 50V	
C820	ECQV1H104JL3	0.1 / J / 50V	
C822	F1B3F1220001	1200p / K / 3KV	
C823	35YXF100M	100p / M / 35V	
C824	ECQV1H104JL3	0.1 / J / 50V	
C825	ECQV1H104JL3	0.1 / J / 50V	
C826	ECQV1H104JL3	0.1 / J / 50V	
C841	F2A1V2220019	2200p / 35V	
C842	F2A1V2220019	2200p / 35V	
C843	F2A1V2220019	2200p / 35V	
C844	F2A1V2220019	2200p / 35V	
C845	ECQV1H104JL3	0.1 / J / 50V	
C881	PJCE1H100MCH	10p / M / 50V	
C882	PJCE1H100MCH	10p / M / 50V	
COILS			
L801	ELF18D850C	Line Filter	
L802	ELF18D850C	Line Filter	
L803	G0A941J00001	Coil	
L841	G0A6R8K00004	Coil	
DIODES			
D801	B0FBBR000014	Diode	
D802	B0HARR000018	Diode	
D803	B0EALR000008	Diode	
D804	B0EAEM000001	Diode	
D805	B0EAEM000001	Diode	
D806	ERA83004AVRB	Diode	
D807	RD7.5ESAB3	Zener Diode	
D808	B0EAEM000001	Diode	
D809	B0EAEM000001	Diode	
D810	B0EAEM000001	Diode	
D811	B0EAEM000001	Diode	
D812	ERB44-10G1	Diode	
D813	ERB44-10G1	Diode	
D814	B0EAEM000001	Diode	
D815	B0BA02600019	Zener Diode	

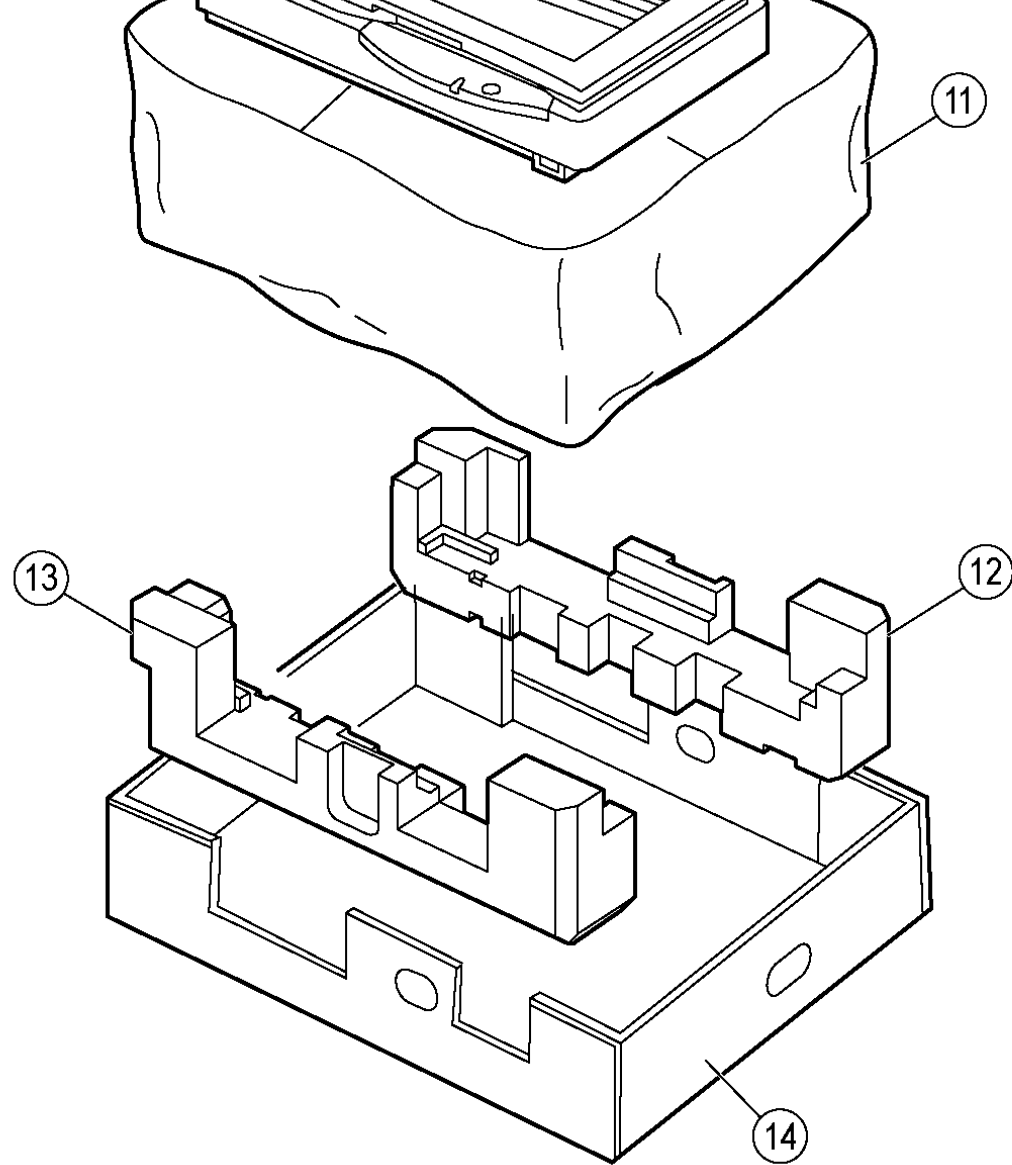
D816	B0BA02600019	Zener Diode	
D817	B0BA02600019	Zener Diode	
D841	B0JBSL000011	Diode	
D881	MA165	Diode	
D882	B0BA02600019	Zener Diode	
D883	MA165	Diode	
D884	B0EAEM000001	Diode	
D886	MA165	Diode	
D887	MA165	Diode	
D888	B0BA5R000010	Zener Diode	
TRANSISTORS			
Q801	B1DEGR000022	Transistor	
Q802	B1GCCFGJ0002	Transistor	
Q803	UNR421200A	Transistor	
Q804	2SC3311A	Transistor	
Q806	UNR421200A	Transistor	
Q807	2SA1309A	Transistor	
Q861	B1GCCFGJ0002	Transistor	
Q862	UNR421200A	Transistor	
Q863	UNR421200A	Transistor	
Q864	UNR421200A	Transistor	
Q865	2SB1457T	Transistor	
Q881	2SC3311A	Transistor	
ICs			
IC801	C0DABZG00001	AC-DC Converter	
IC802	C0DACZH00013	Regulator	
IC803	B3PAA0000261	Photo Isolator	
IC804	B3PAA0000261	Photo Isolator	
IC805	B3PAA0000261	Photo Isolator	
IC807	C0DAEFC00001	IC, Linear	
IC841	C0DAEFC00001	IC, Linear	
OTHERS			
CN801	B2P3-VH	Connector	
CN802	K1KA10A00404	Connector	
CN803	B3B-EH	Connector	
F801	K5Y402B00002	Fuse, 250V	
F841	XBA2C63TB15L	Fuse, 250V	

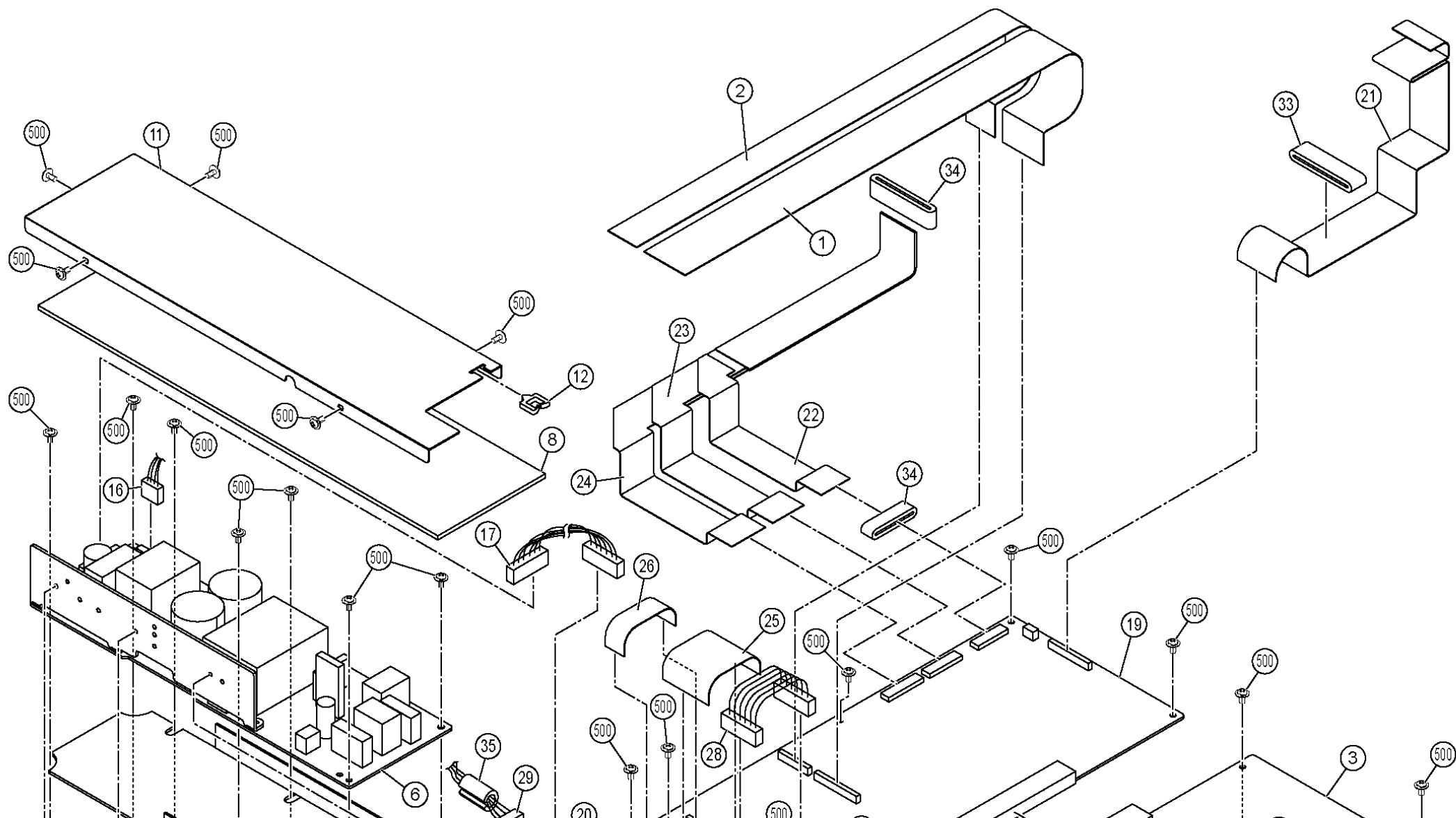
FH1	TJC6320	Fuse Holder	
FH2	TJC6320	Fuse Holder	
FH3	TJC6320	Fuse Holder	
FH4	TJC6320	Fuse Holder	
TH801	D4CAD5R00004	Thermistor	
TH802	D4CAD5R00004	Thermistor	
ZNR801	470NS10D-K0	Varistor	
	FA-35-9051	Insulator Sheet	
	PJMYB0012Z	Heat Sink	
	PJMYC0001Z	Heat Sink	
	XTN3+8JFX	Screw	
	XTW3+U8SFX	Screw	
	XTW3+10S	Screw	

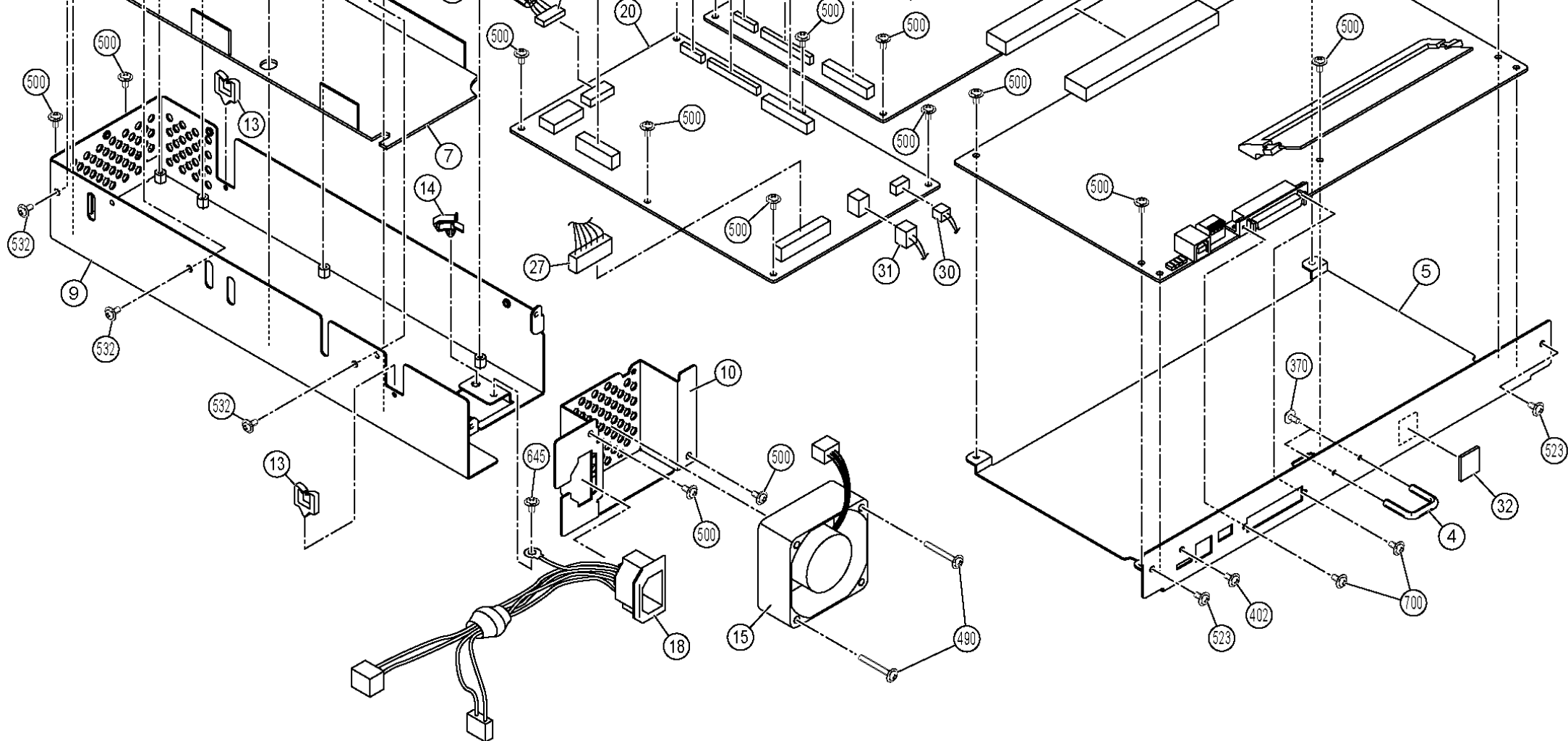
[TOP](#) [PREVIOUS](#)

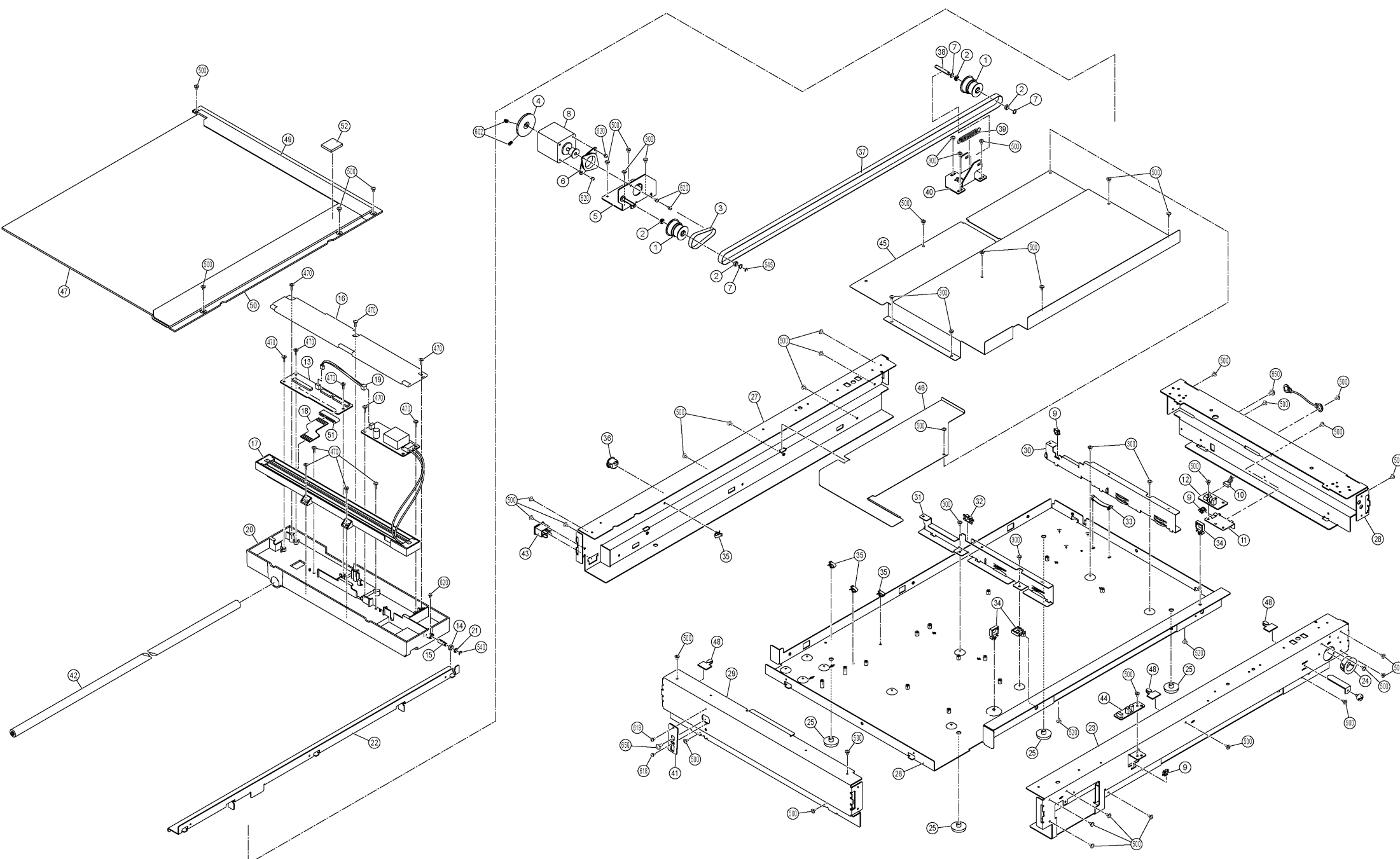


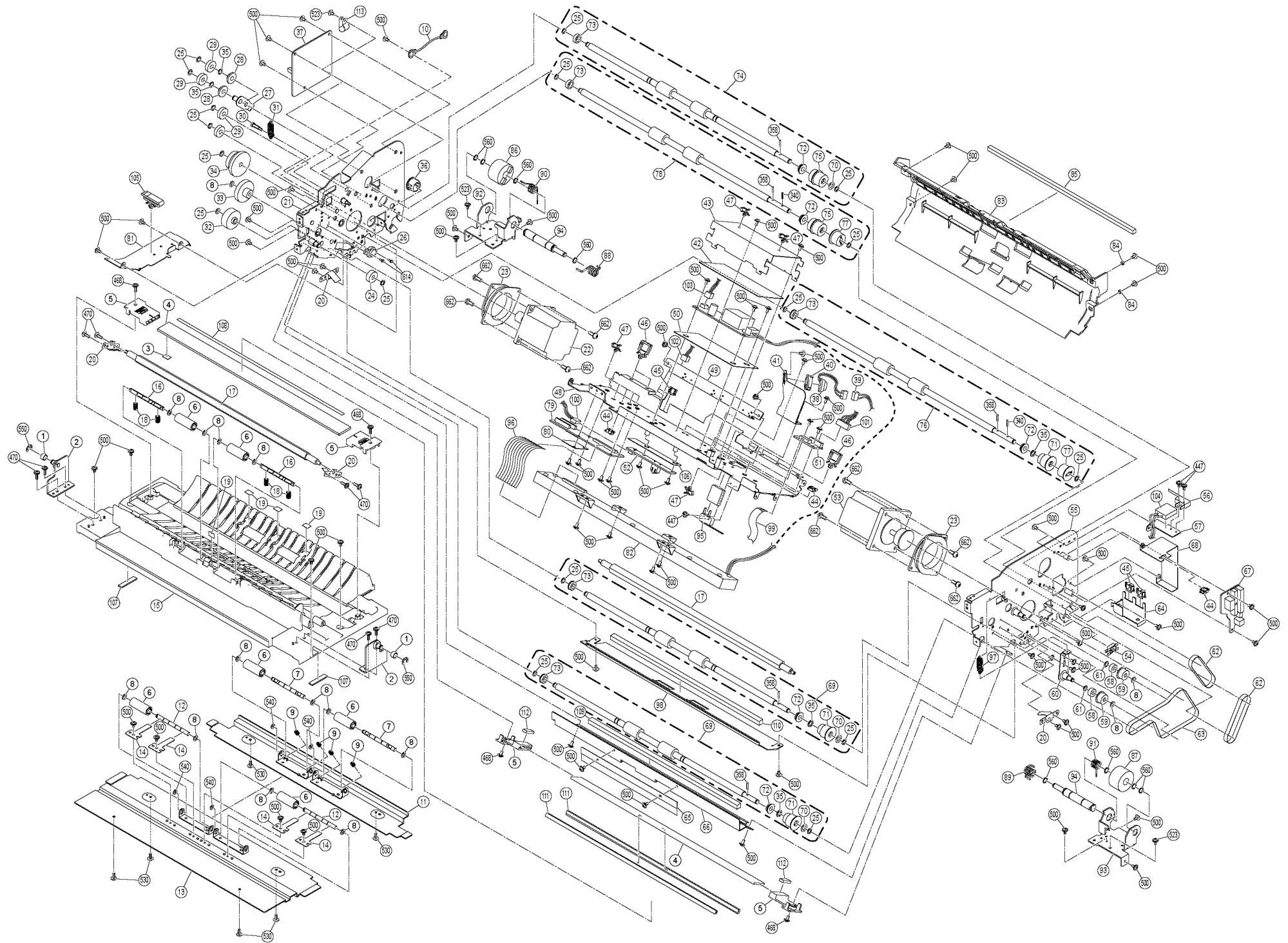


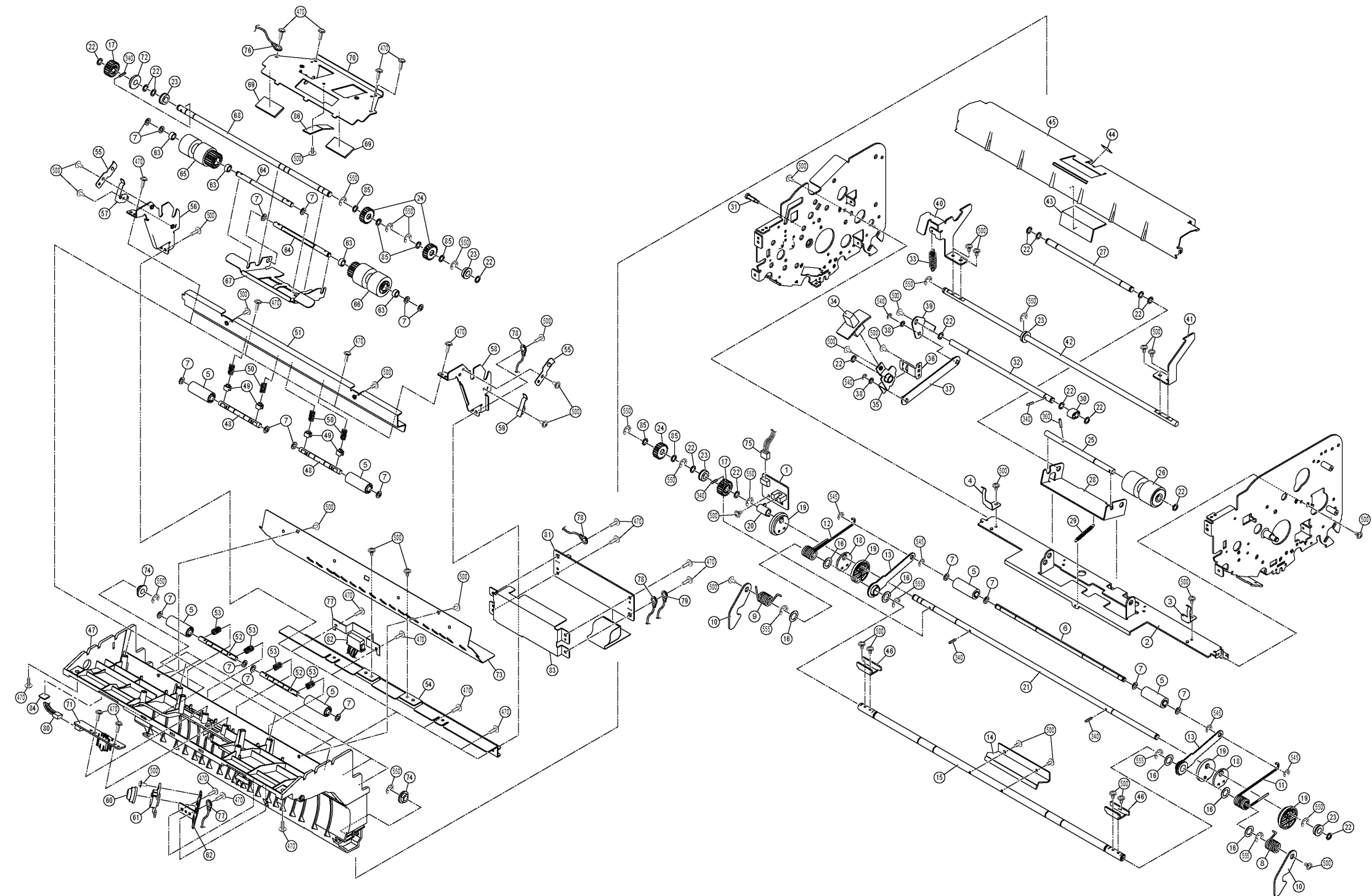


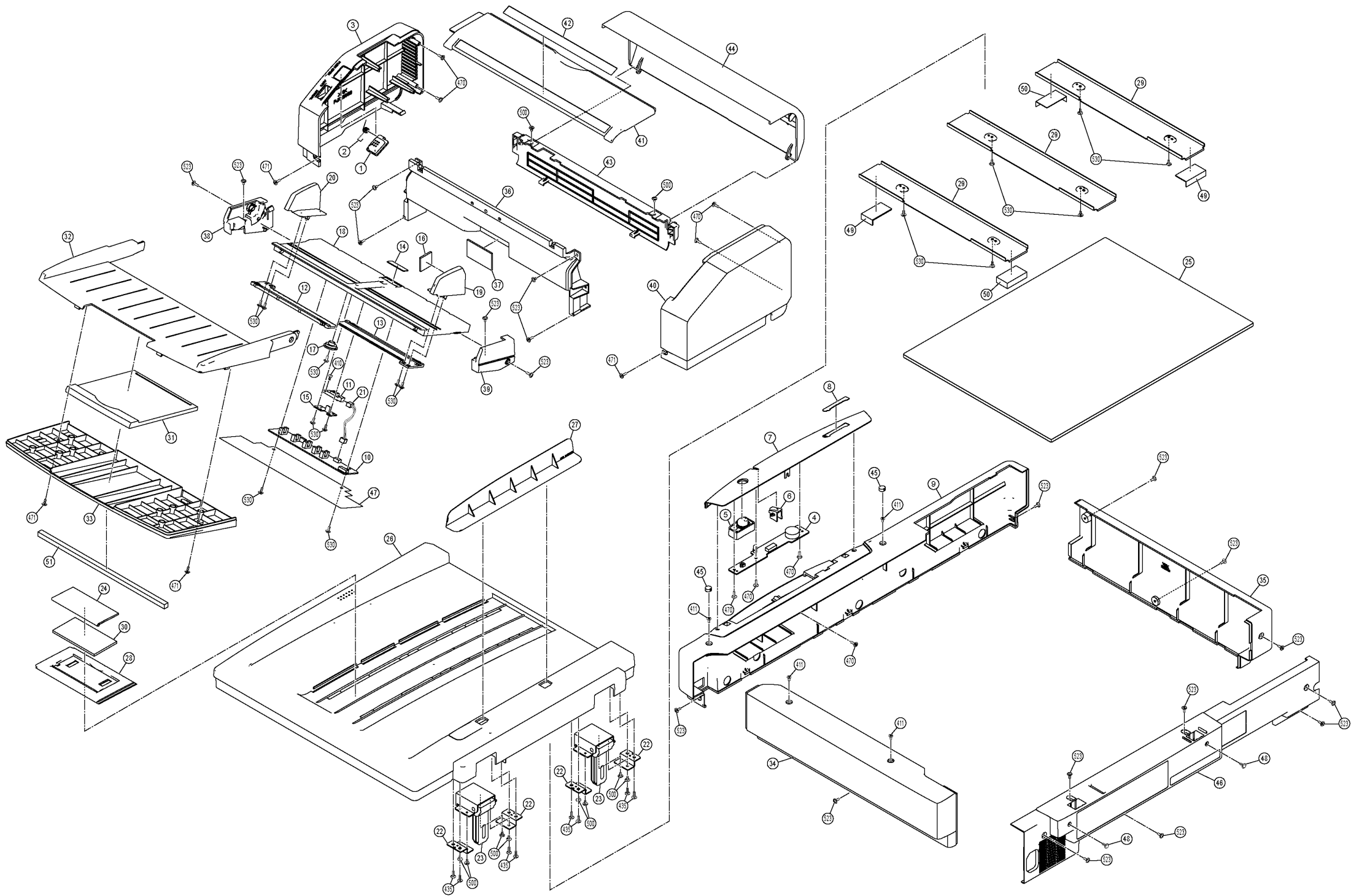


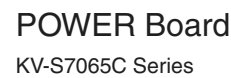


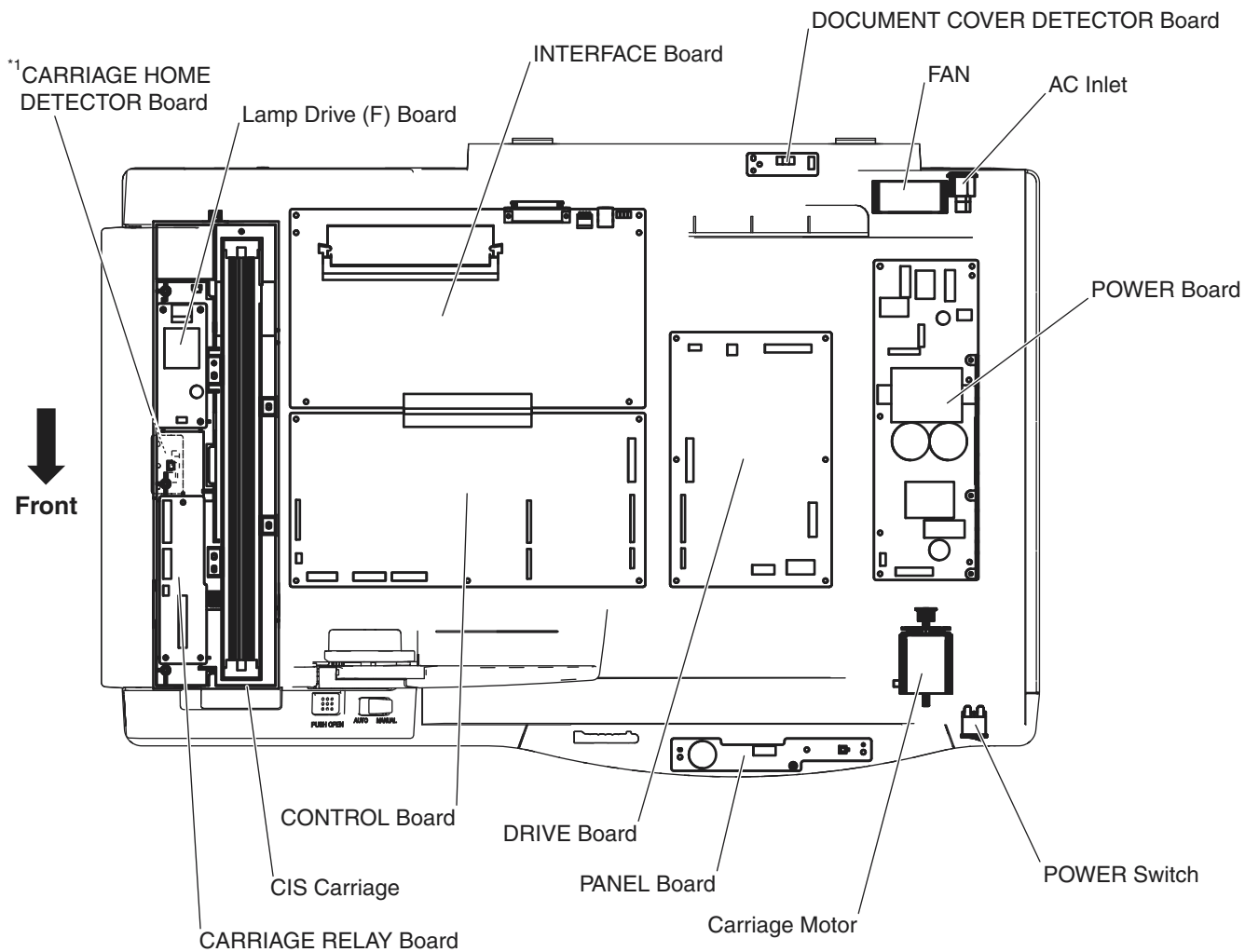


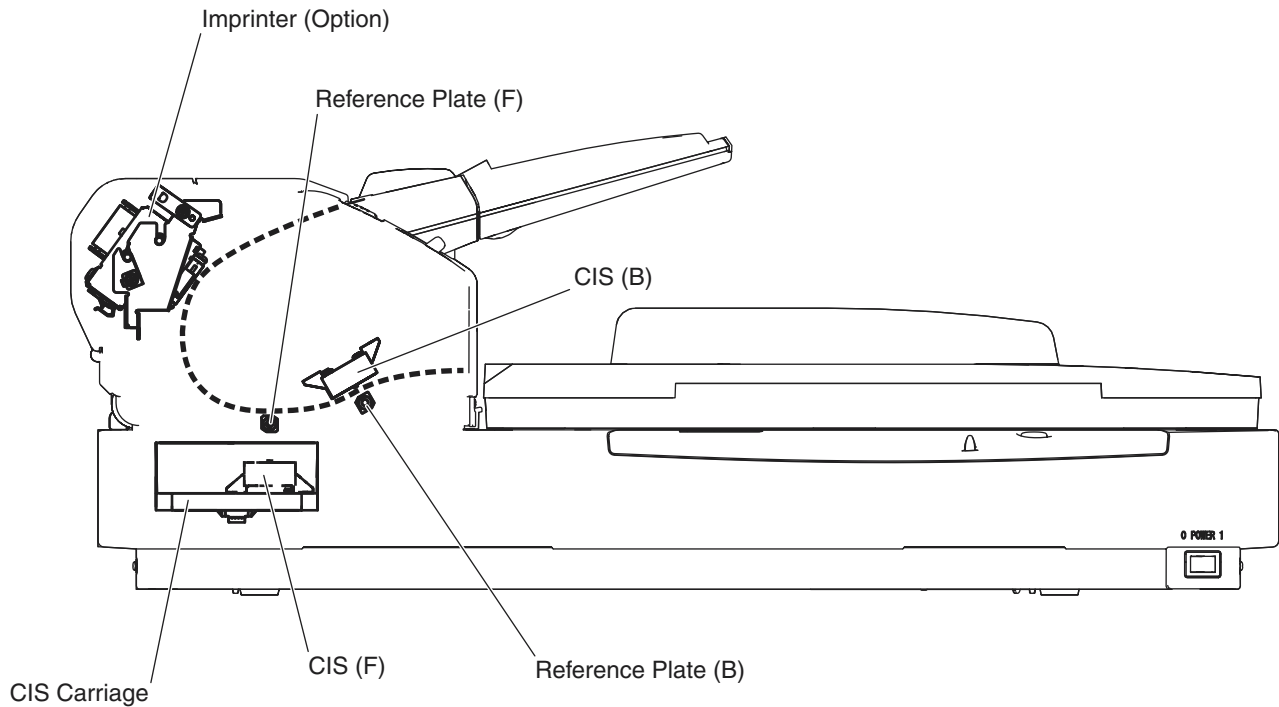


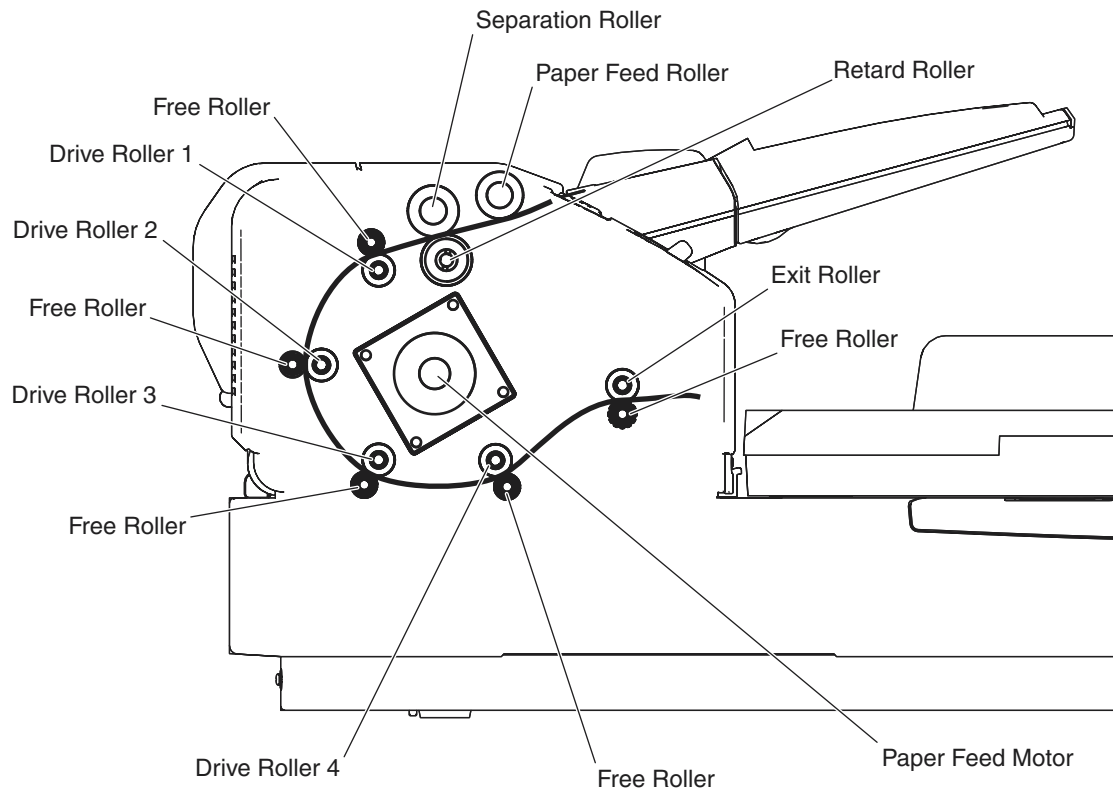


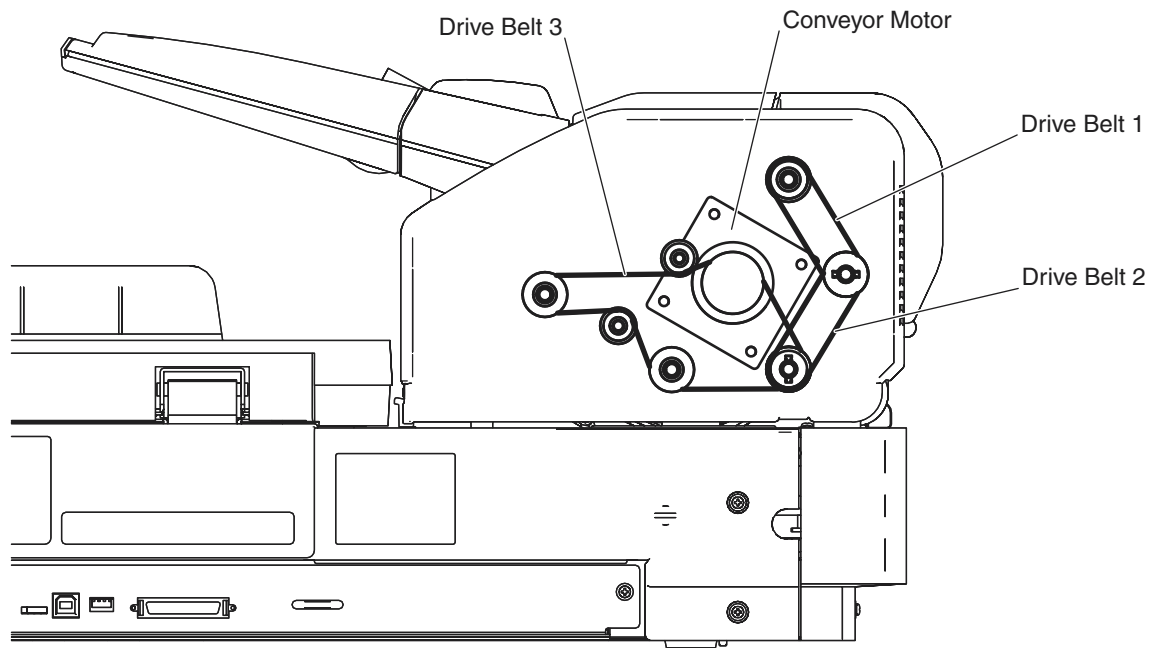


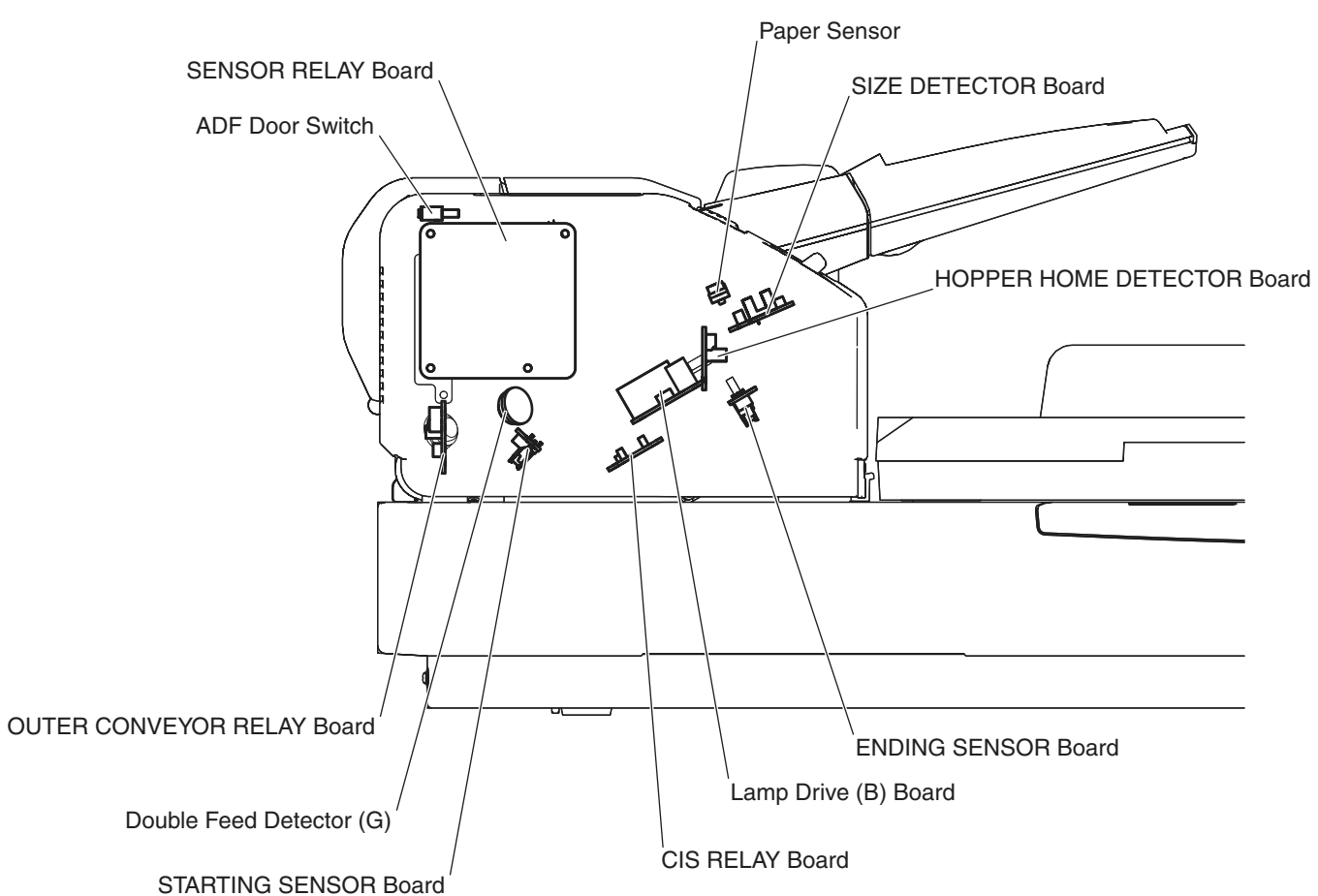

$$\frac{1}{1}$$

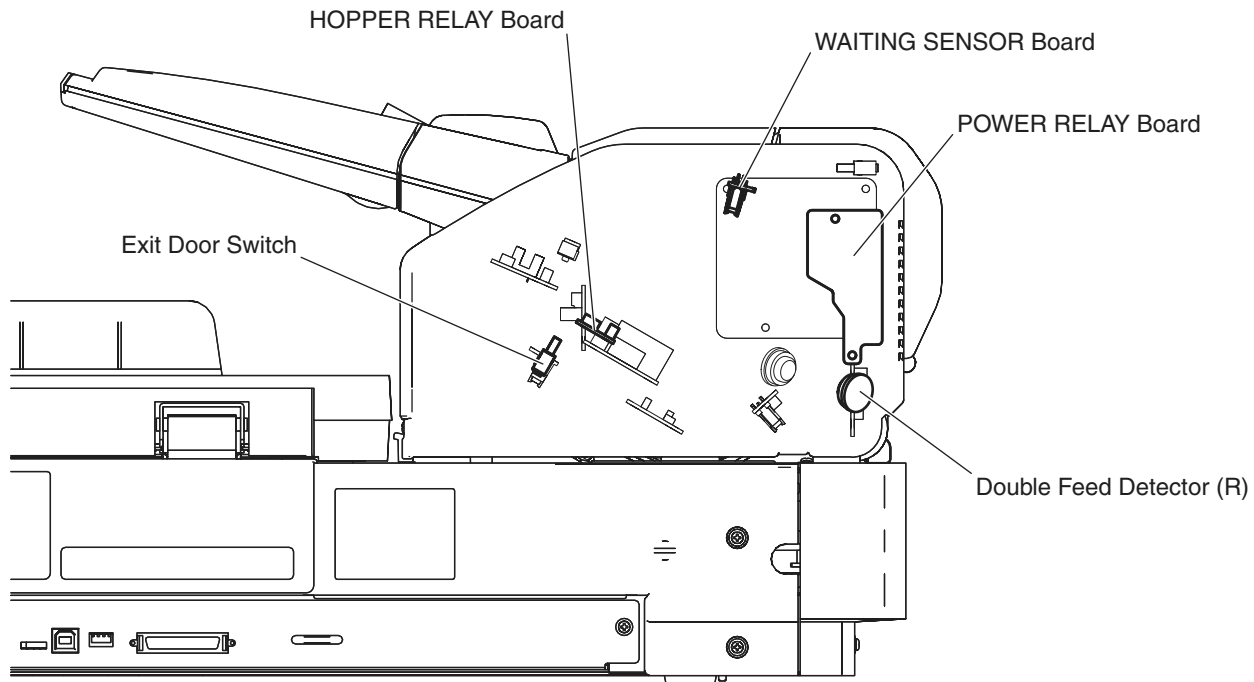


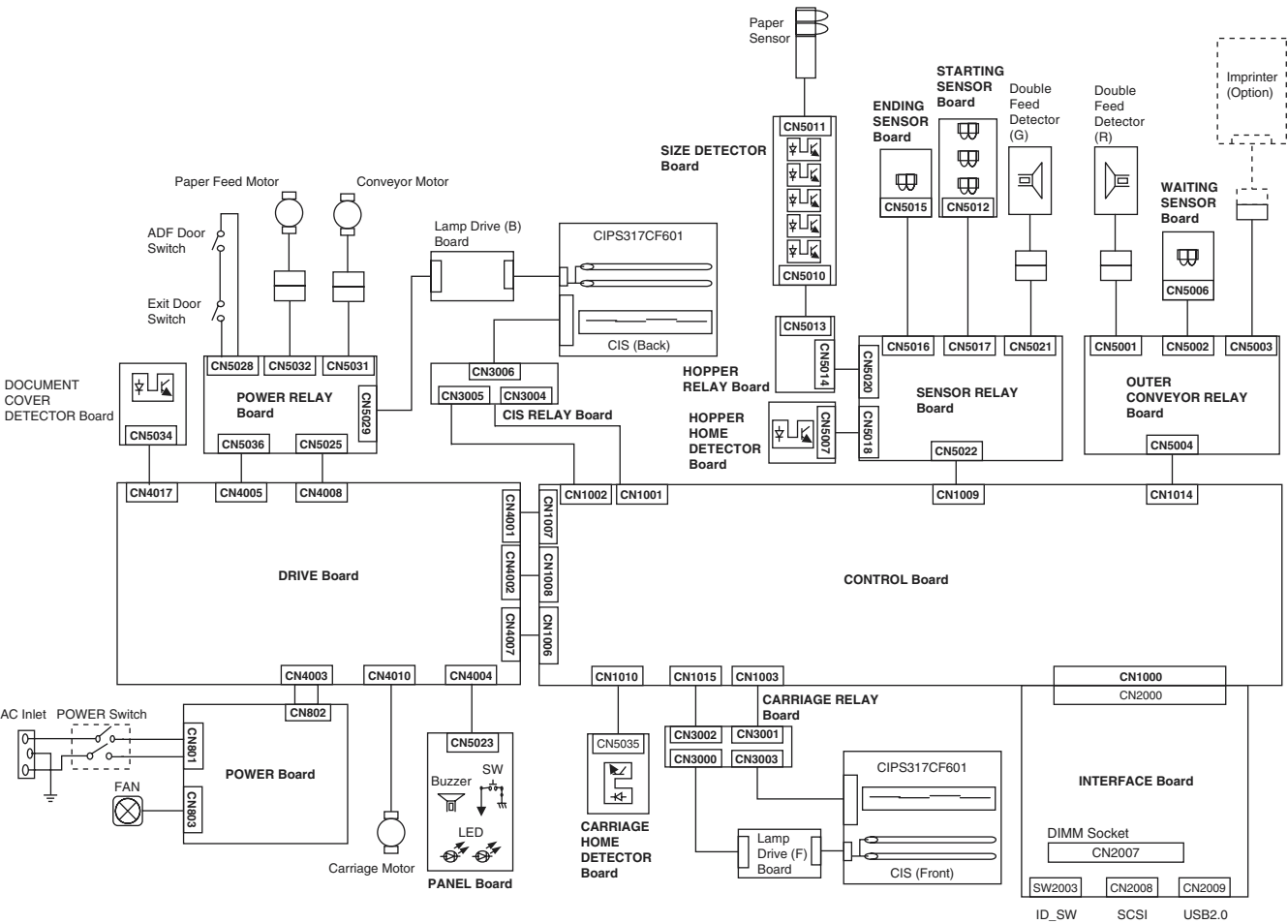




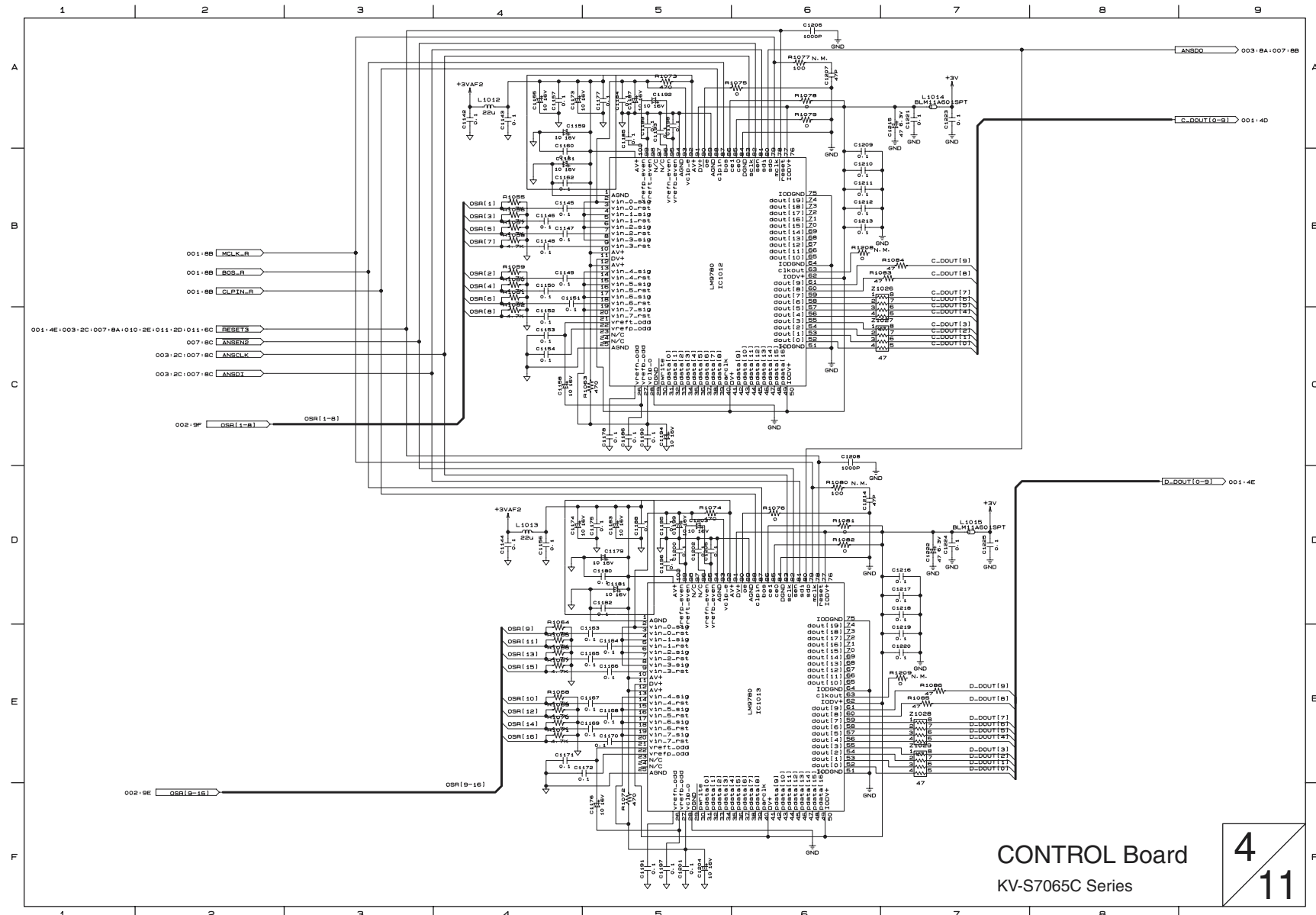


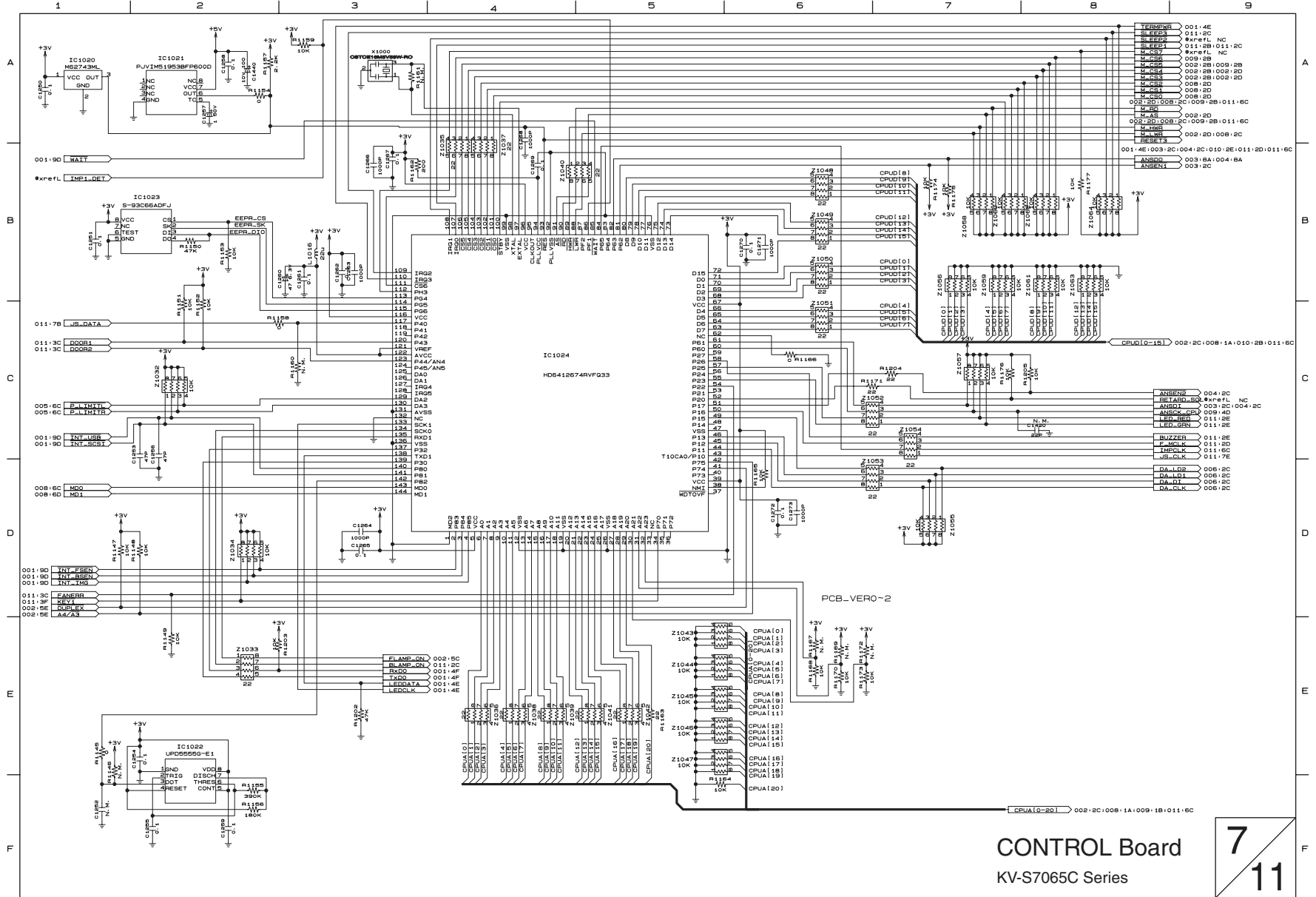


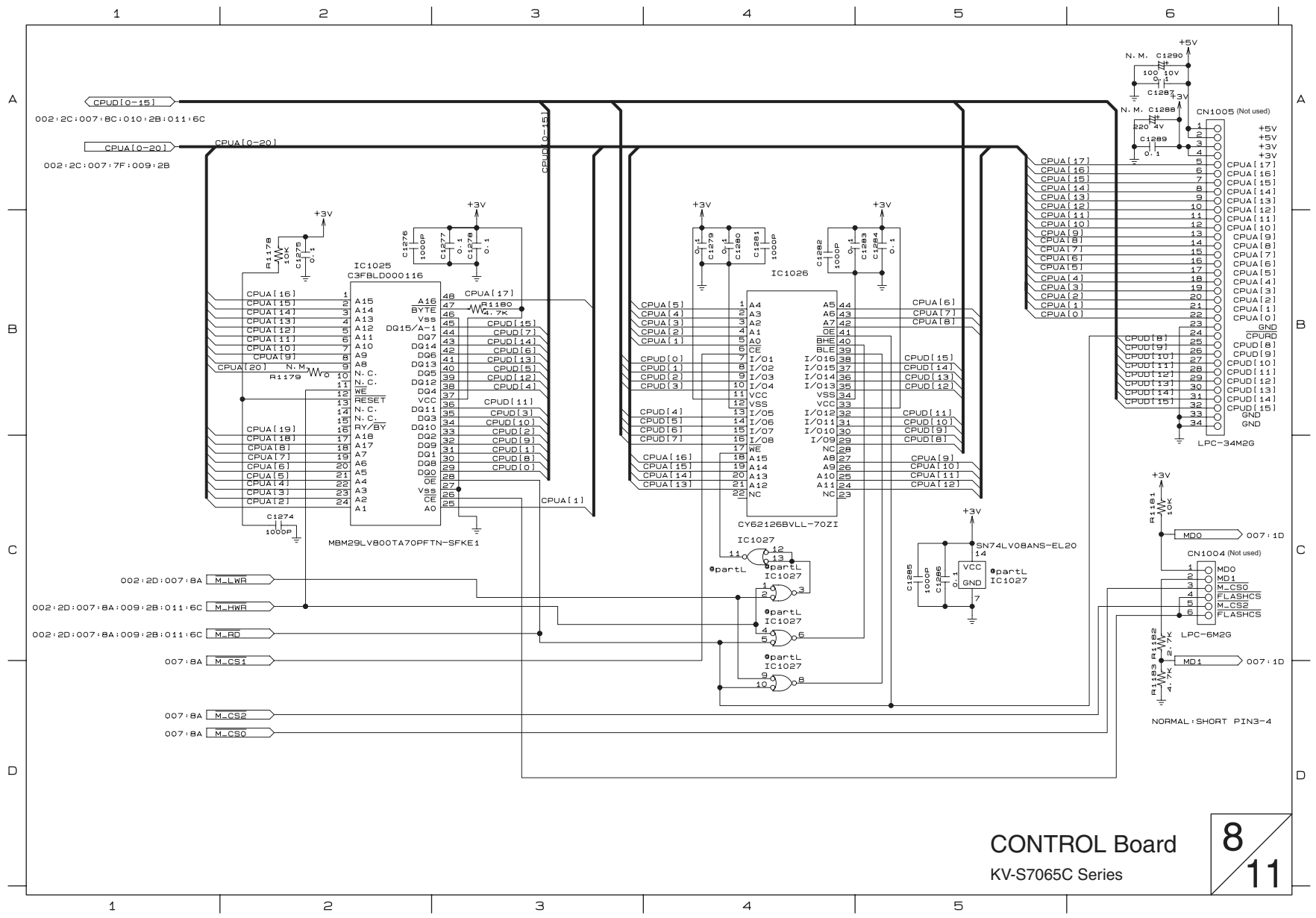








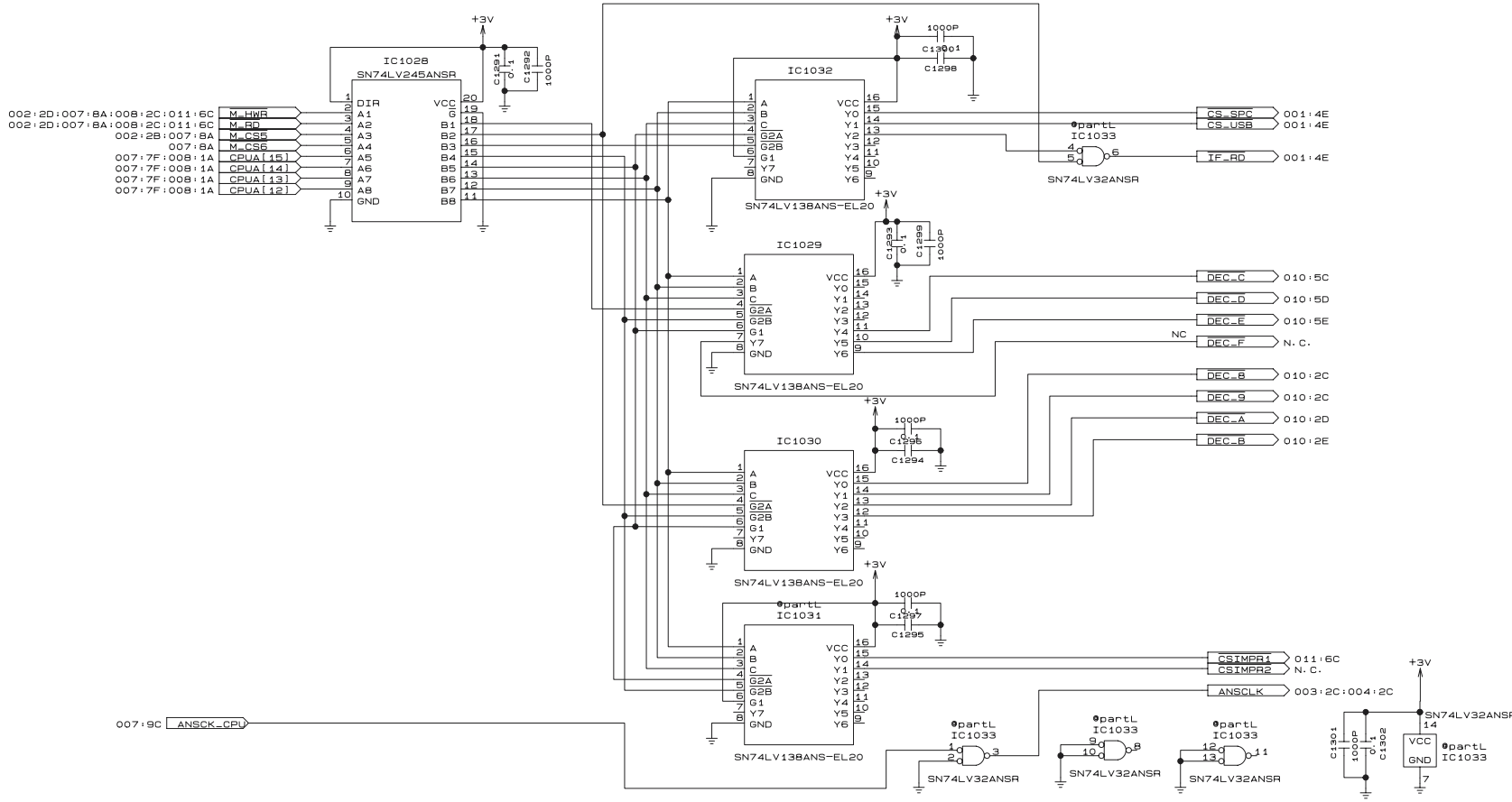




A
B
C
D

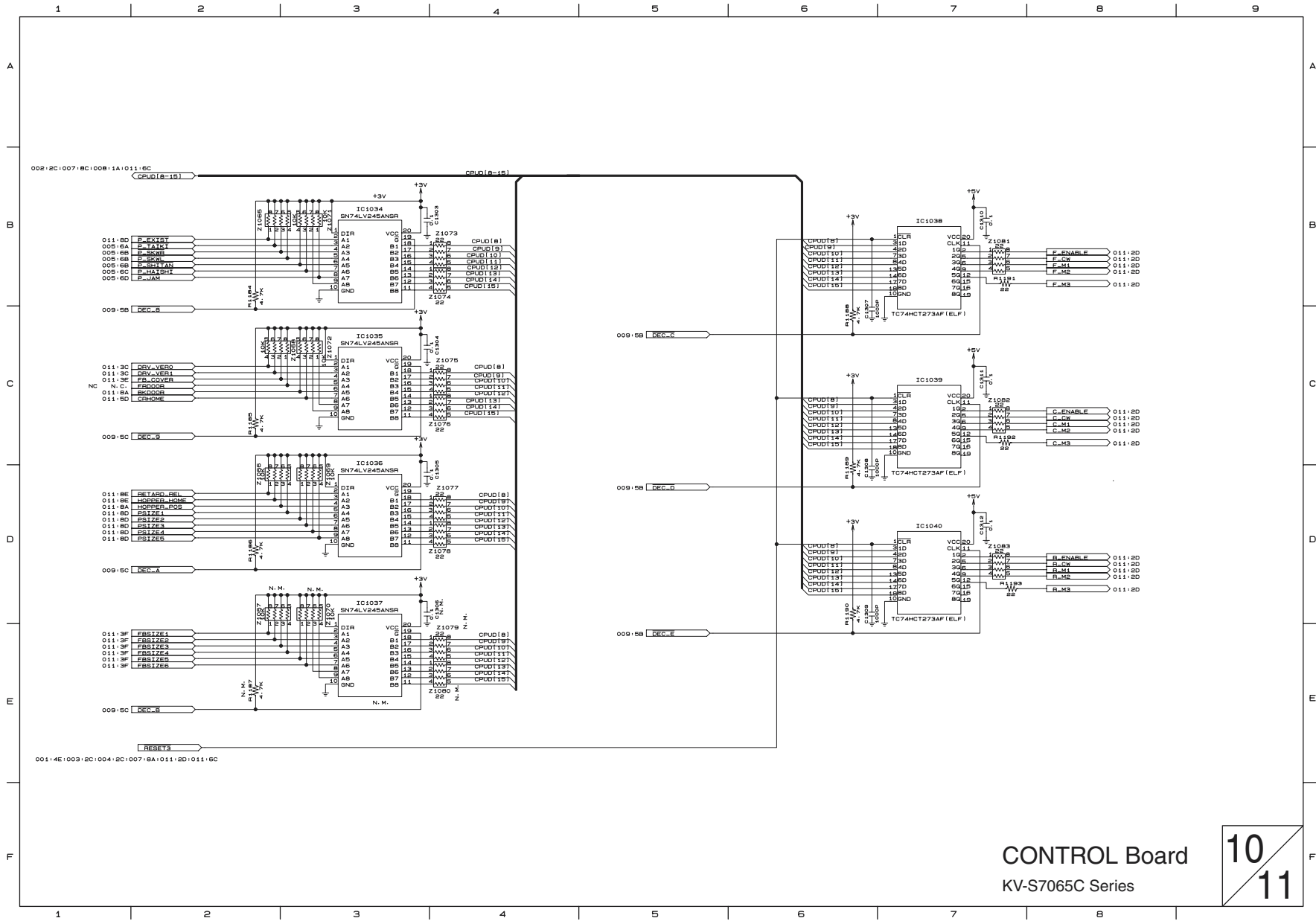
1 2 3 4 5 6

1 2 3 4 5 6

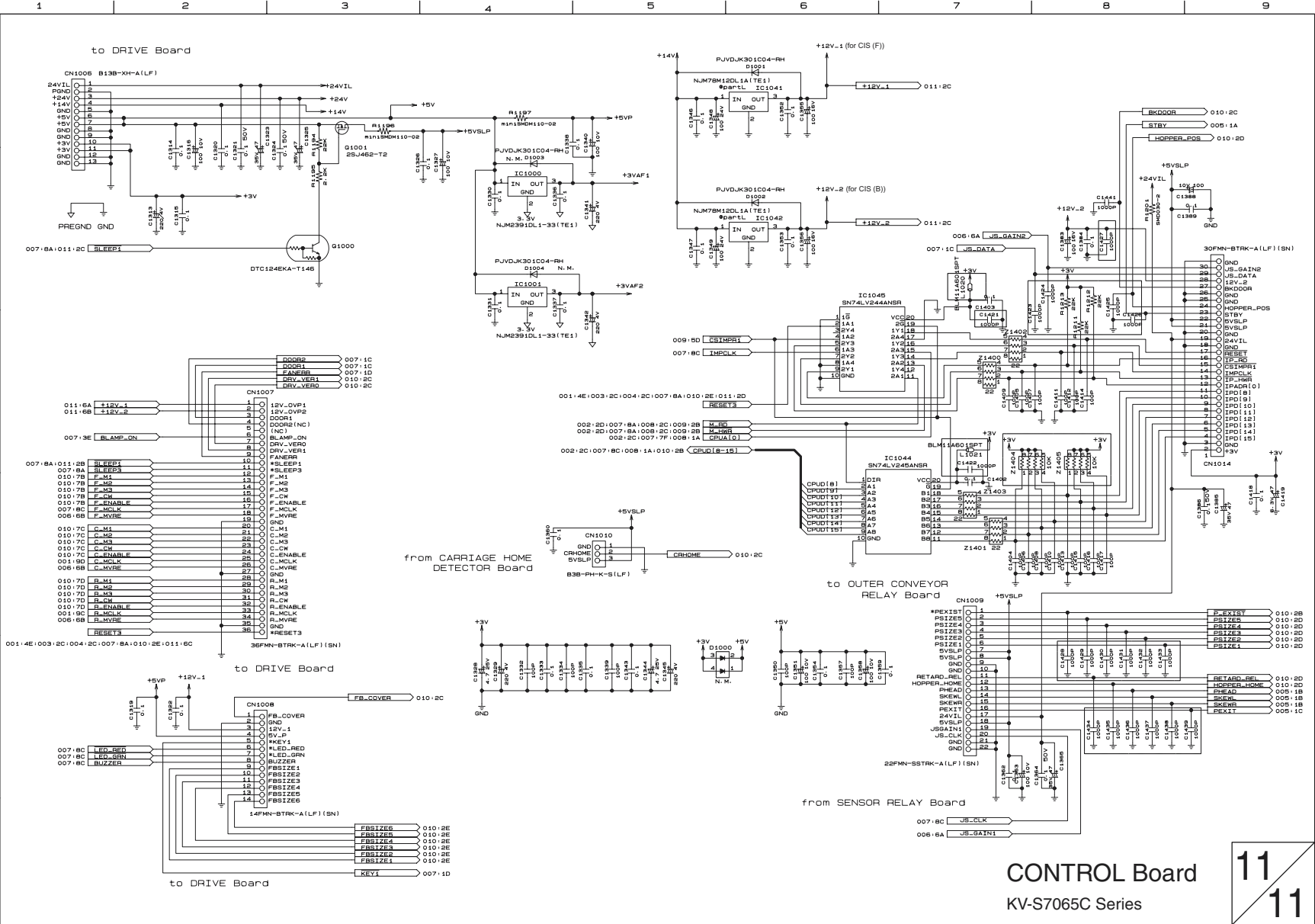


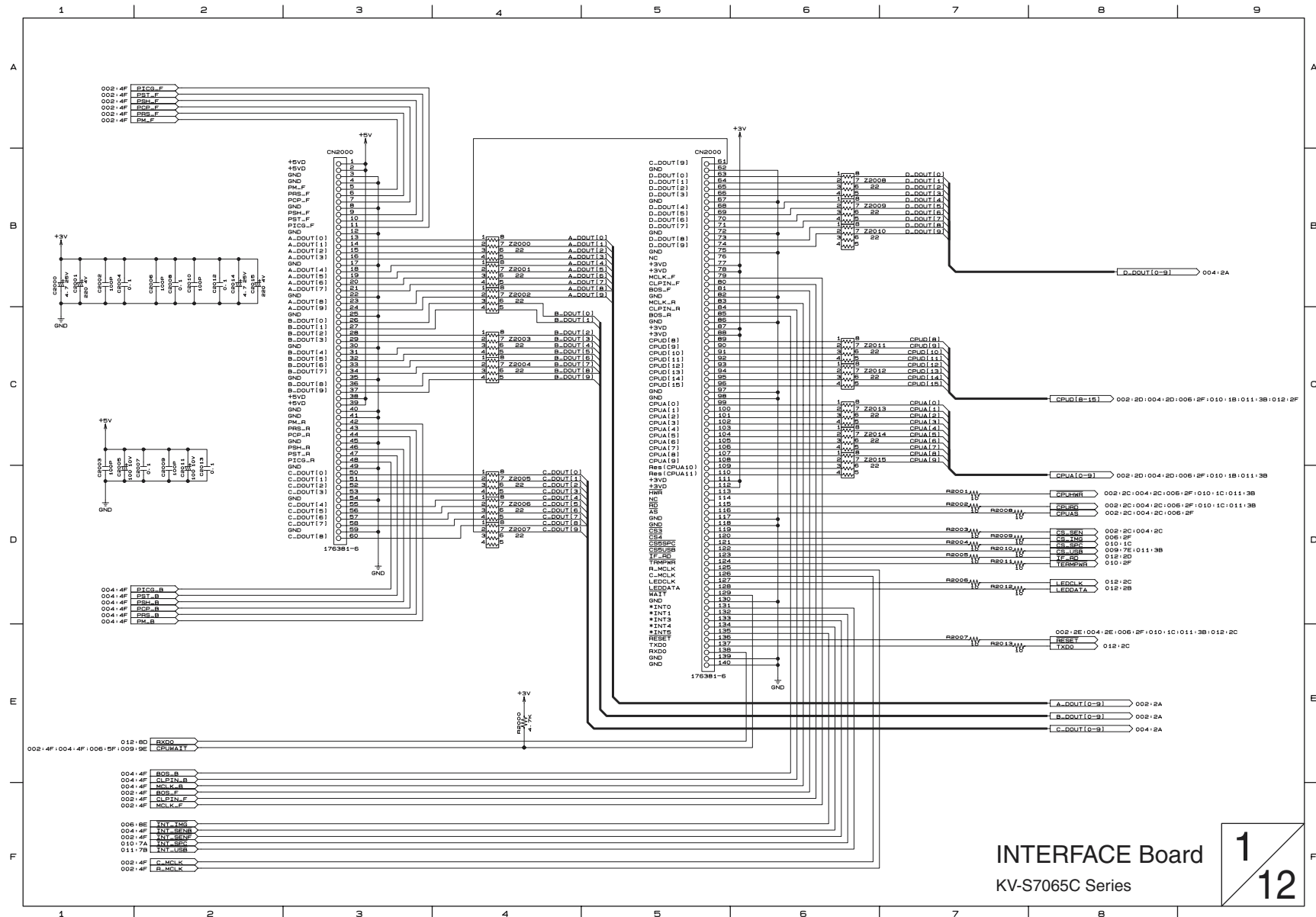
CONTROL Board
KV-S7065C Series

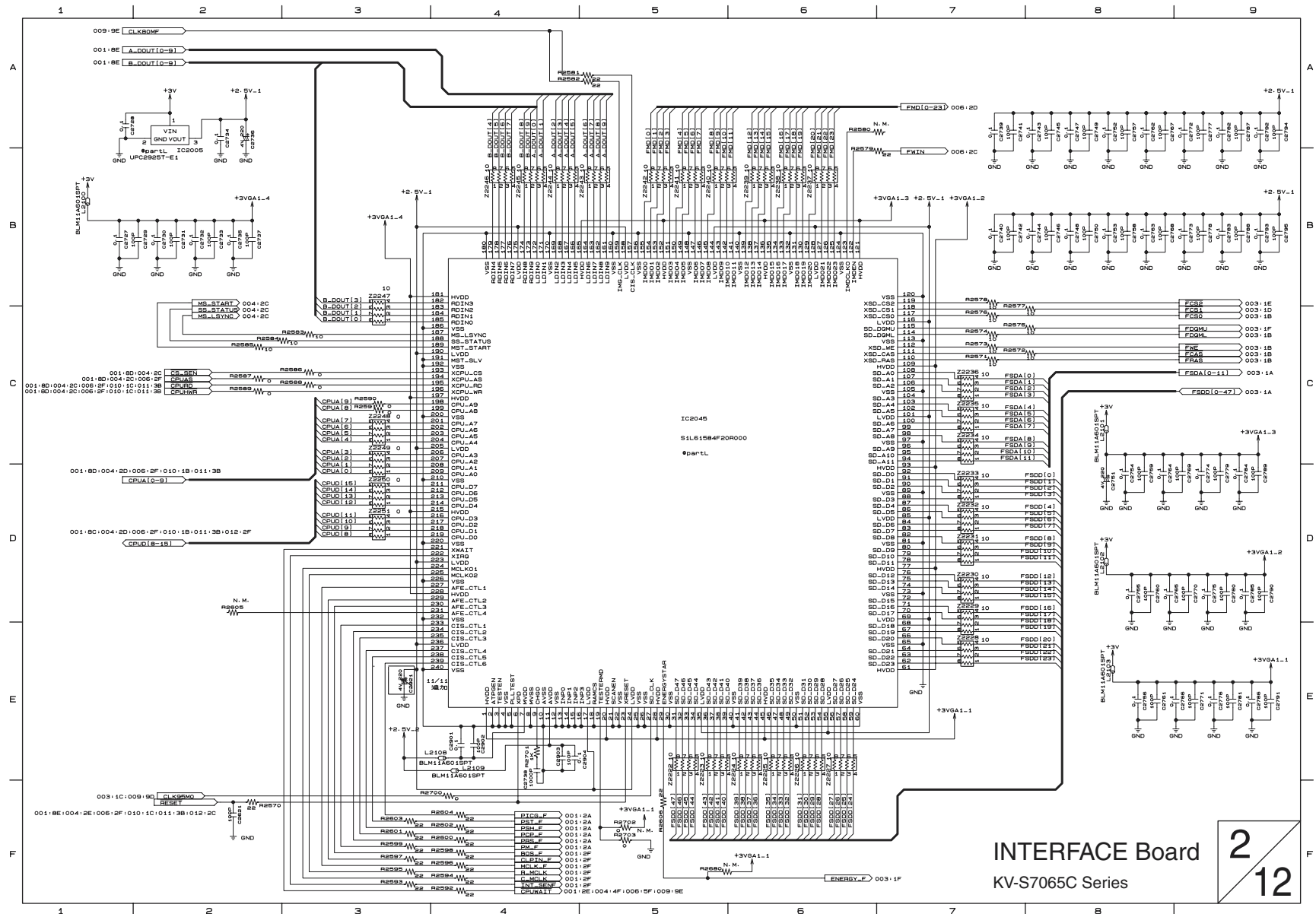
9
11



A
B
C
D
E
F

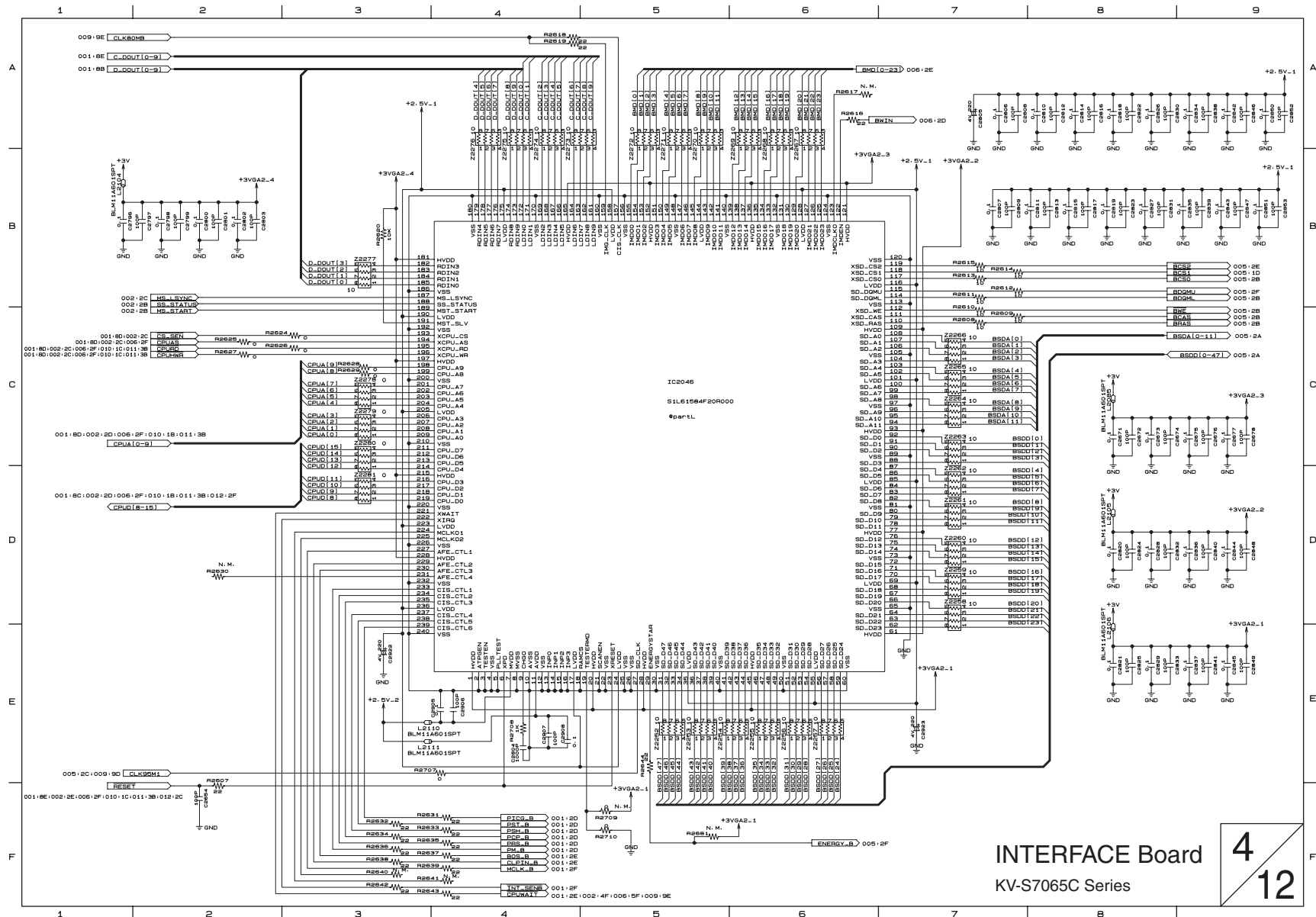


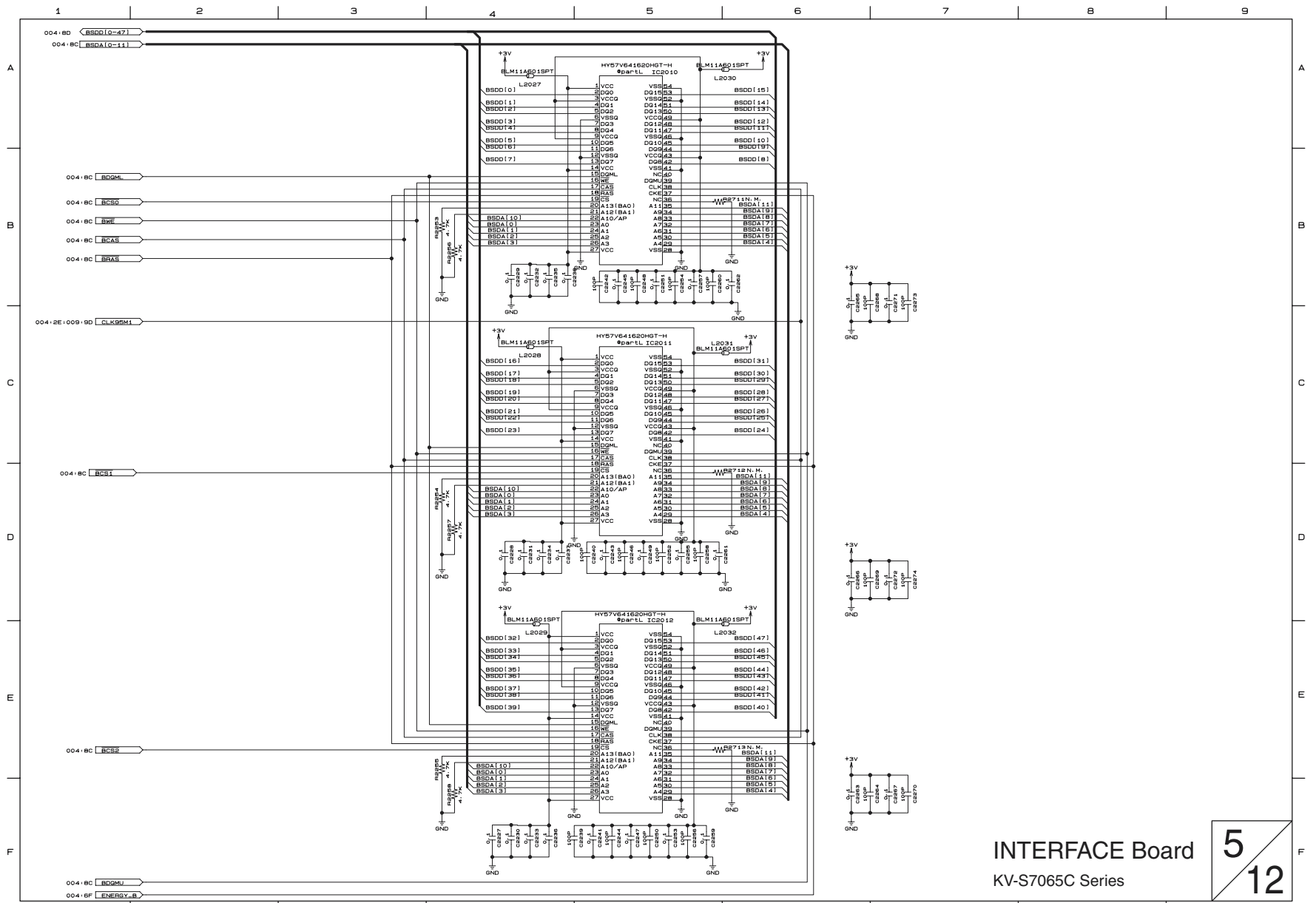






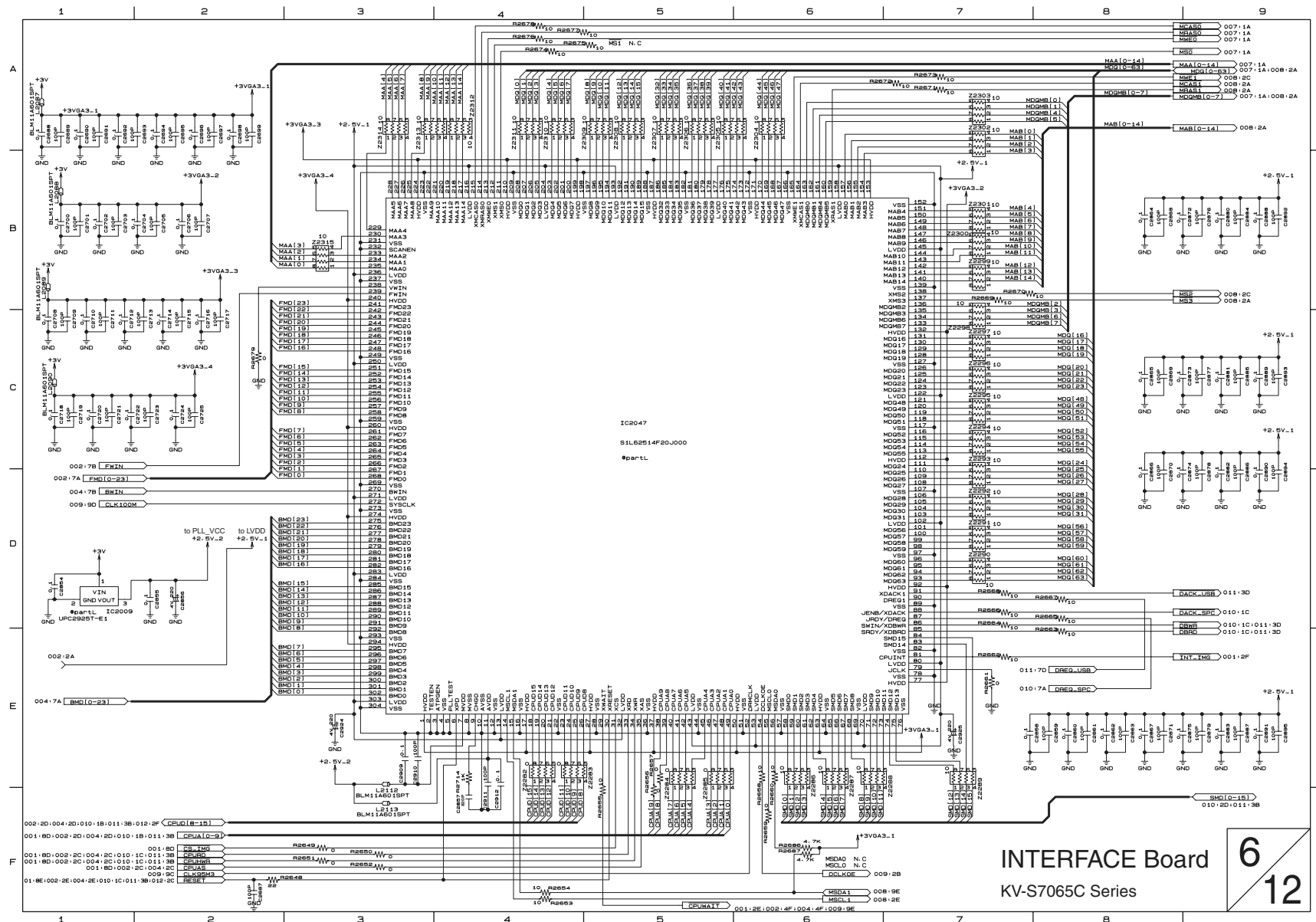
F



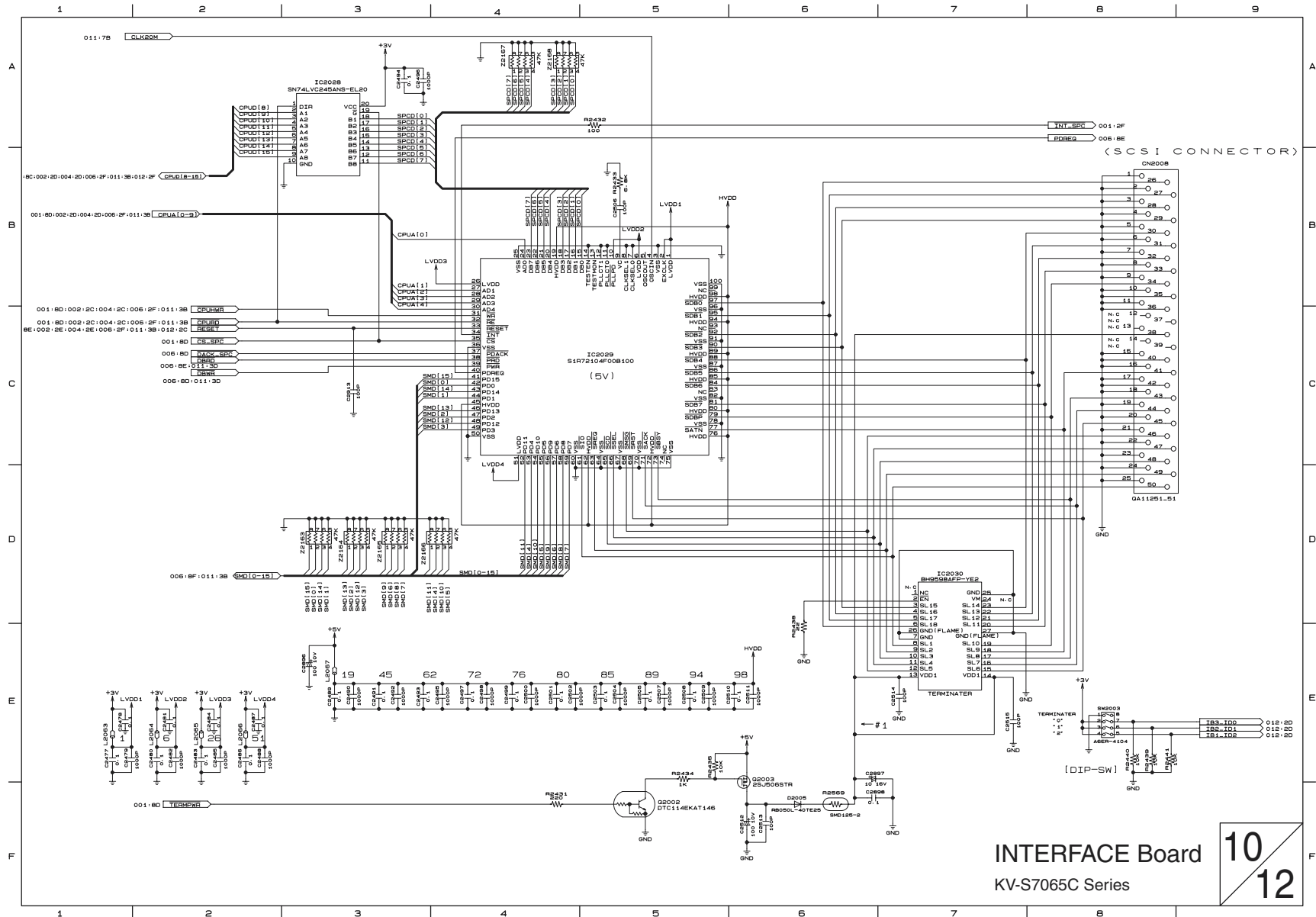


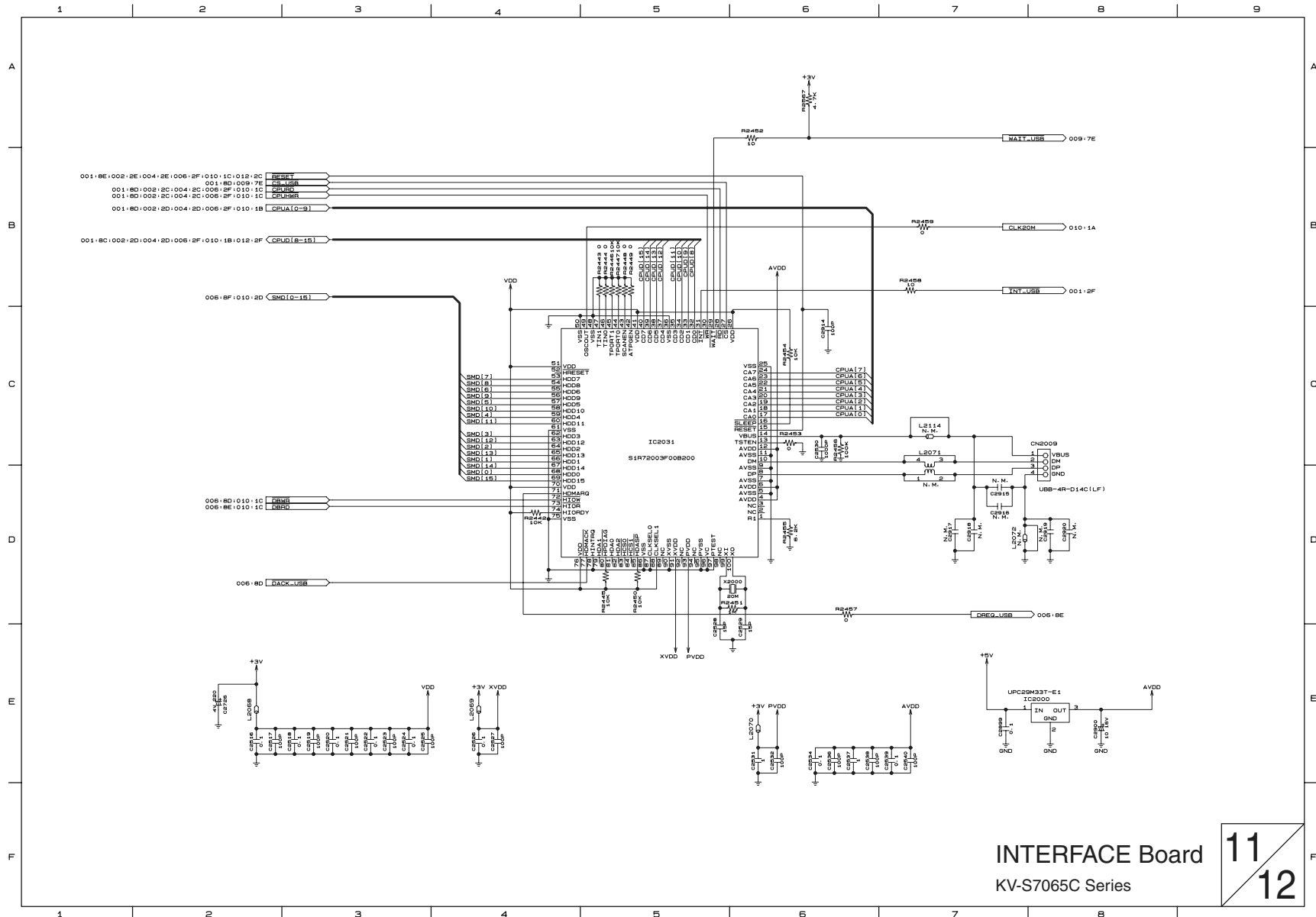
INTERFACE Board
KV-S7065C Series

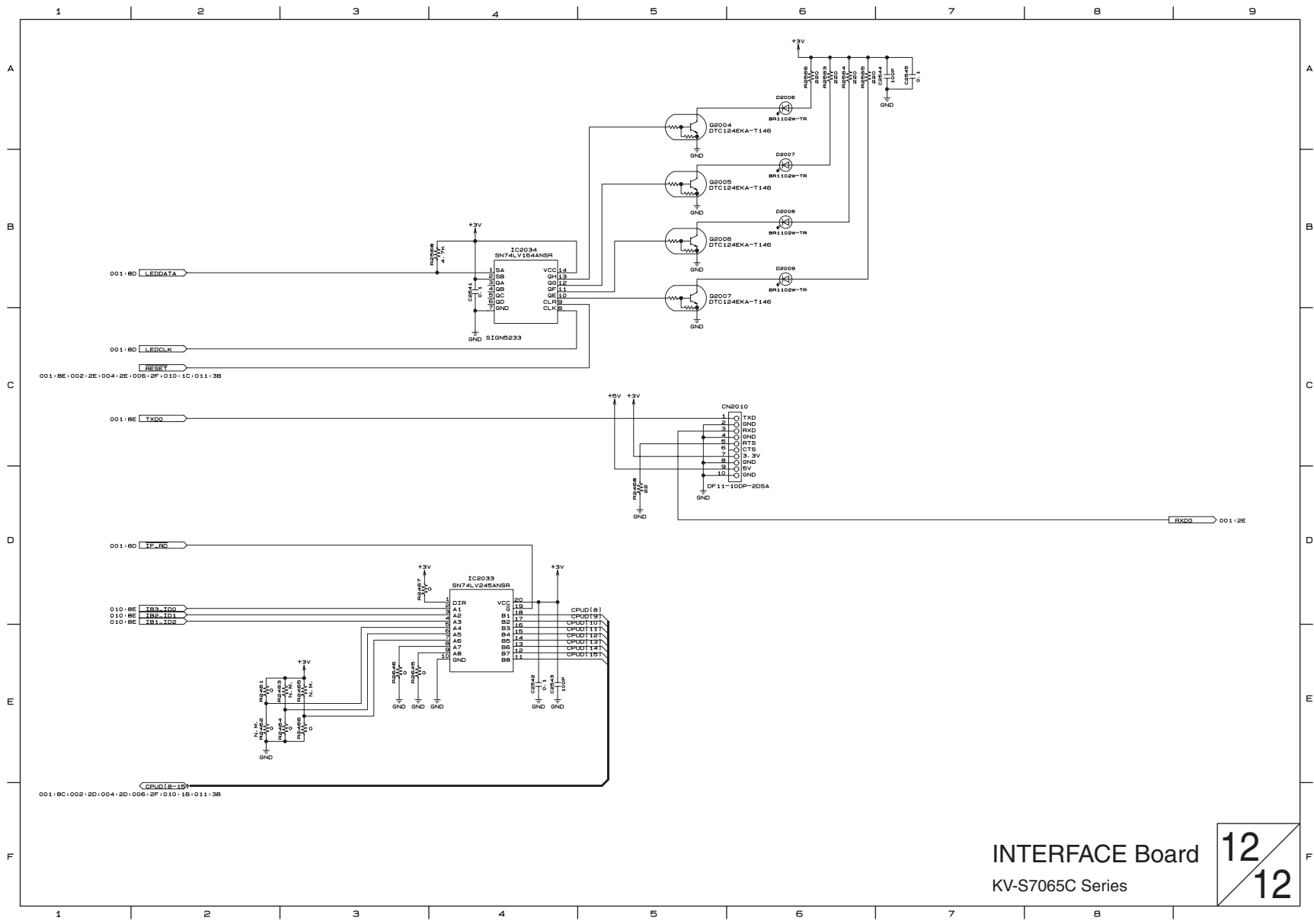
5
12





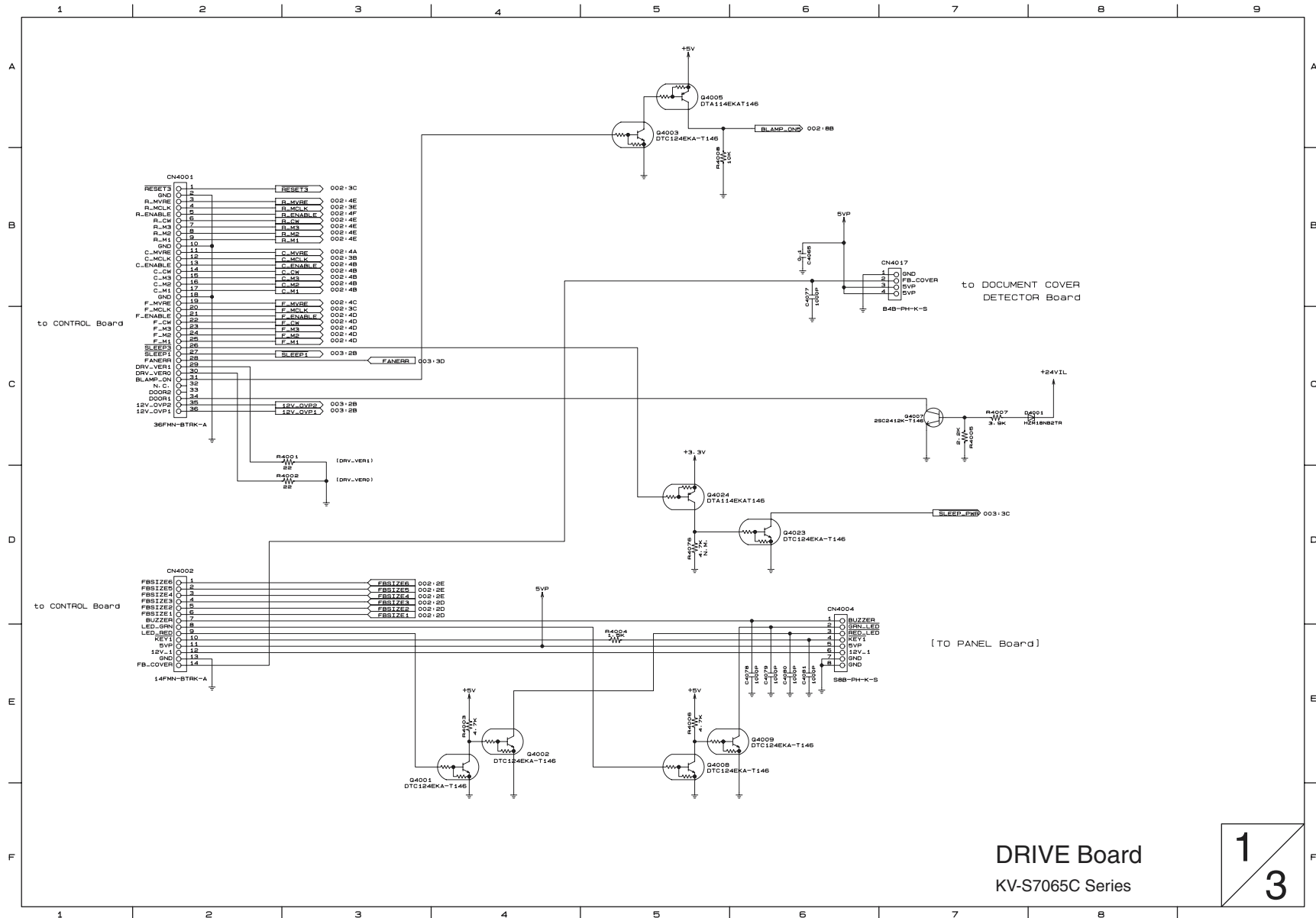


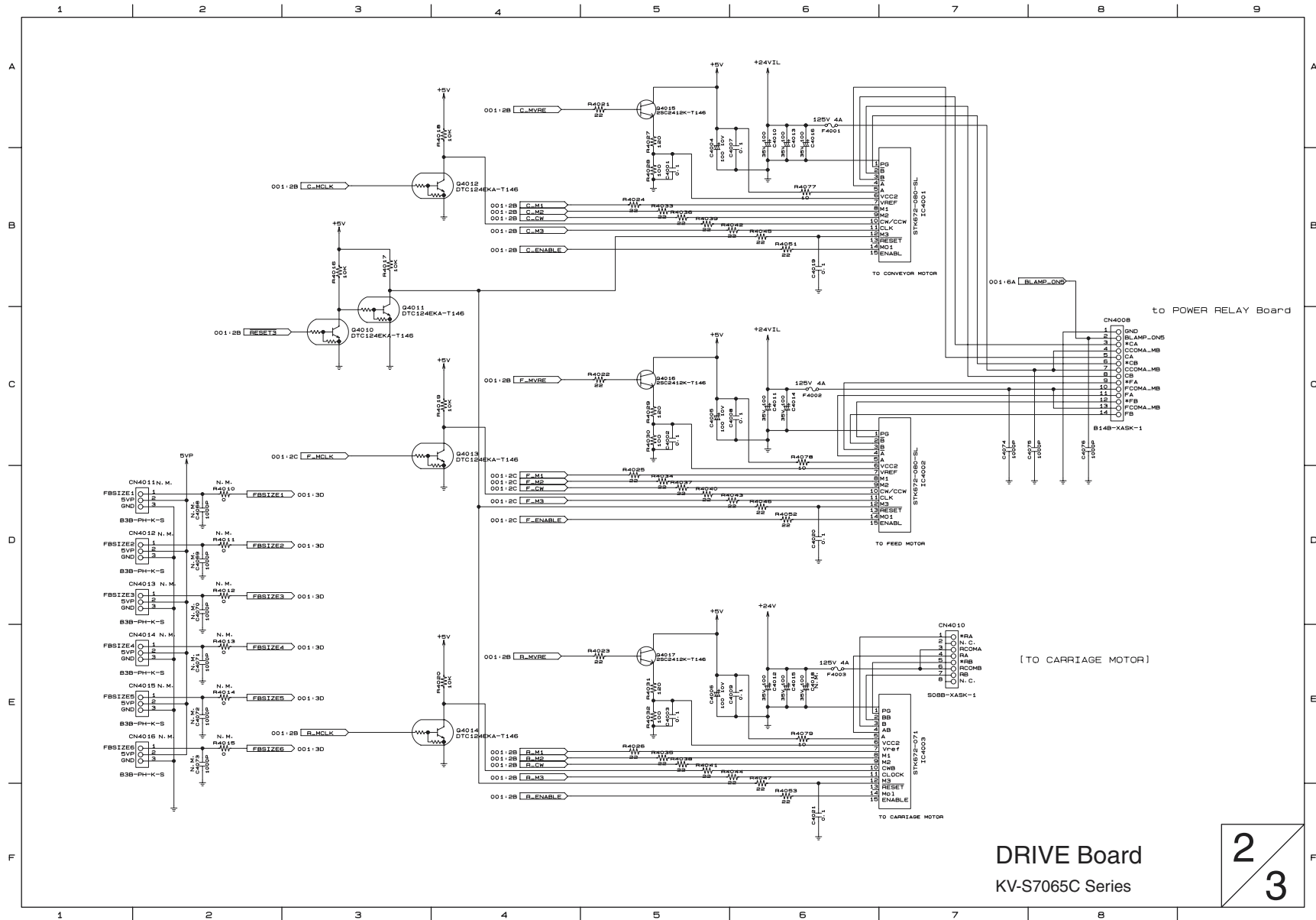




INTERFACE Board
KV-S7065C Series

12
12



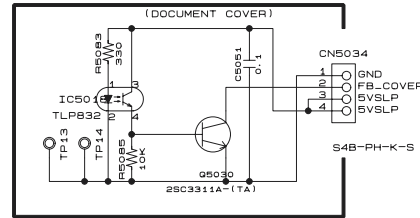






[PJUPB0030-d]

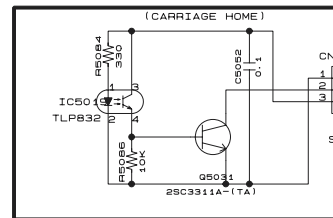
DOCUMENT COVER DETECTOR Board



to DRIVE Board

[PJUPB0030-e]

CARRIAGE HOME DETECTOR Board



to CONTROL Board

DOCUMENT COVER DETECTOR and
CARRIAGE HOME DETECTOR Boards

KV-S7065C Series

OUTER CONVEYER RELAY Board

[PJUPB0030-f]

A

B

C

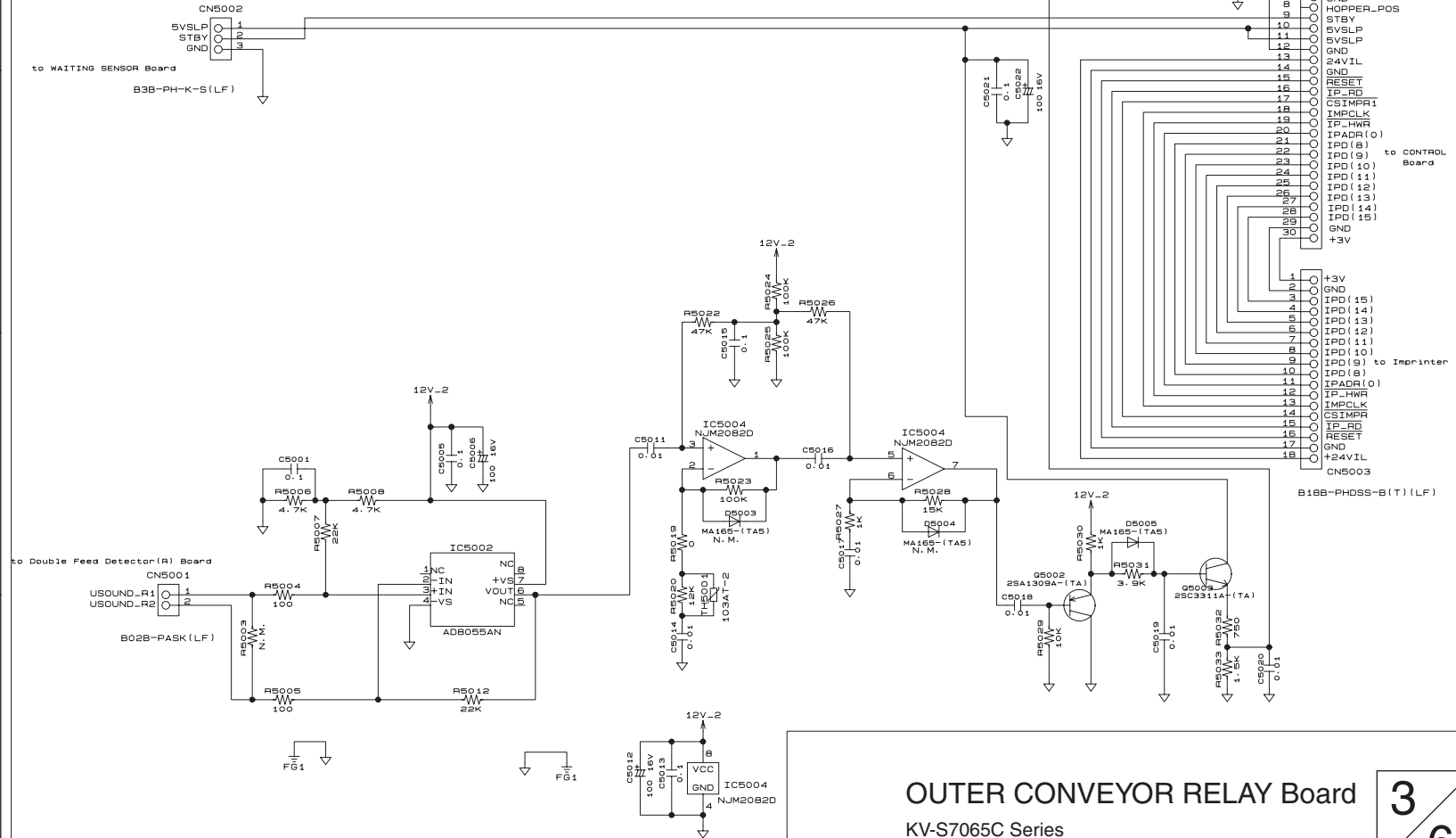
D

A

B

C

D



OUTER CONVEYER RELAY Board
KV-S7065C Series

3
6

CN5006

1	○	5VSLP
2	○	STBY
3	○	GND

S3B-PH-K-S(LF)

to OUTER CONVEYOR RELAY Board

(HOPPER HOME)

IC500
TLP832

IC501
555

2SC3311A-(TA)

9500B

9V

10K

330

100

100K

0.1

1000P

SPK

BZ

CN5

S4B

CN5015

1 5VSLP
2 PFEXIT
3 GND

S3B-PH-K-S(LF)
to SENSOR RELAY Board

WAITING SENSOR, ENDING SENSOR, and HOPPER HOME DETECTOR Boards

KV-S7065C Series

$$\frac{4}{6}$$



CN1000 [CONTROL Board] - CN2000 [INTERFACE Board]

Pin No.		Signal Name	Description
CN1000	CN2000		
1	1	+5VD	+5 V
2	2	+5VD	+5 V
3	3	GND	Ground
4	4	GND	Ground
5	5	PM_F	Front CIS clock (5 MHz)
6	6	PRS_F	Front CIS reset pulse
7	7	PCP_F	Front CIS clamp pulse
8	8	GND	Ground
9	9	PSH_F	Front CIS shift pulse
10	10	PST_F	Front CIS storage pulse
11	11	PICG_F	Front CIS ICG pulse
12	12	GND	Ground
13	13	A_DOUT (0)	Front CIS CH1-8 digital data [0]
14	14	A_DOUT (1)	Front CIS CH1-8 digital data [1]
15	15	A_DOUT (2)	Front CIS CH1-8 digital data [2]
16	16	A_DOUT (3)	Front CIS CH1-8 digital data [3]
17	17	GND	Ground
18	18	A_DOUT (4)	Front CIS CH1-8 digital data [4]
19	19	A_DOUT (5)	Front CIS CH1-8 digital data [5]
20	20	A_DOUT (6)	Front CIS CH1-8 digital data [6]
21	21	A_DOUT (7)	Front CIS CH1-8 digital data [7]
22	22	GND	Ground
23	23	A_DOUT (8)	Front CIS CH1-8 digital data [8]
24	24	A_DOUT (9)	Front CIS CH1-8 digital data [9]
25	25	GND	Ground
26	26	B_DOUT (0)	Front CIS CH9-16 digital data [0]
27	27	B_DOUT (1)	Front CIS CH9-16 digital data [1]
28	28	B_DOUT (2)	Front CIS CH9-16 digital data [2]
29	29	B_DOUT (3)	Front CIS CH9-16 digital data [3]
30	30	GND	Ground
31	31	B_DOUT (4)	Front CIS CH9-16 digital data [4]
32	32	B_DOUT (5)	Front CIS CH9-16 digital data [5]
33	33	B_DOUT (6)	Front CIS CH9-16 digital data [6]
34	34	B_DOUT (7)	Front CIS CH9-16 digital data [7]
35	35	GND	Ground
36	36	B_DOUT (8)	Front CIS CH9-16 digital data [8]
37	37	B_DOUT (9)	Front CIS CH9-16 digital data [9]
38	38	+5VD	+5 V
39	39	+5VD	+5 V
40	40	GND	Ground
41	41	GND	Ground
42	42	PM_R	Back CIS clock (5 MHz)
43	43	PRS_R	Back CIS reset pulse
44	44	PCP_R	Back CIS clamp pulse
45	45	GND	Ground
46	46	PSH_R	Back CIS shift pulse
47	47	PST_R	Back CIS storage pulse
48	48	PICG_R	Back CIS ICG pulse
49	49	GND	Ground
50	50	C_DOUT (0)	Back CIS CH1-8 digital data [0]
51	51	C_DOUT (1)	Back CIS CH1-8 digital data [1]
52	52	C_DOUT (2)	Back CIS CH1-8 digital data [2]
53	53	C_DOUT (3)	Back CIS CH1-8 digital data [3]
54	54	GND	Ground
55	55	C_DOUT (4)	Back CIS CH1-8 digital data [4]
56	56	C_DOUT (5)	Back CIS CH1-8 digital data [5]
57	57	C_DOUT (6)	Back CIS CH1-8 digital data [6]
58	58	C_DOUT (7)	Back CIS CH1-8 digital data [7]

Pin No.		Signal Name	Description
CN1000	CN2000		
59	59	GND	Ground
60	60	C_DOUT (8)	Back CIS CH1-8 digital data [8]
61	61	C_DOUT (9)	Back CIS CH1-8 digital data [9]
62	62	GND	Ground
63	63	D_DOUT (0)	Back CIS CH9-16 digital data [0]
64	64	D_DOUT (1)	Back CIS CH9-16 digital data [1]
65	65	D_DOUT (2)	Back CIS CH9-16 digital data [2]
66	66	D_DOUT (3)	Back CIS CH9-16 digital data [3]
67	67	GND	Ground
68	68	D_DOUT (4)	Back CIS CH9-16 digital data [4]
69	69	D_DOUT (5)	Back CIS CH9-16 digital data [5]
70	70	D_DOUT (6)	Back CIS CH9-16 digital data [6]
71	71	D_DOUT (7)	Back CIS CH9-16 digital data [7]
72	72	GND	Ground
73	73	D_DOUT (8)	Back CIS CH9-16 digital data [8]
74	74	D_DOUT (9)	Back CIS CH9-16 digital data [9]
75	75	GND	Ground
76	76	N.C.	Not used
77	77	+3VD	+3.3 V
78	78	+3VD	+3.3 V
79	79	MCLK_F	Front ADC master clock (20 MHz)
80	80	CLPIN_F	Front ADC sample/hold clamp pulse
81	81	BOS_F	Front ADC Begining of scan pulse
82	82	GND	Ground
83	83	MCLK_R	Back ADC master clock (20 MHz)
84	84	CLPIN_R	Back ADC sample/hold clamp pulse
85	85	BOS_R	Back ADC Begining of scan pulse
86	86	GND	Ground
87	87	+3VD	+3.3 V
88	88	+3VD	+3.3 V
89	89	CPU D (8)	CPU data [8]
90	90	CPU D (9)	CPU data [9]
91	91	CPU D (10)	CPU data [10]
92	92	CPU D (11)	CPU data [11]
93	93	CPU D (12)	CPU data [12]
94	94	CPU D (13)	CPU data [13]
95	95	CPU D (14)	CPU data [14]
96	96	CPU D (15)	CPU data [15]
97	97	GND	Ground
98	98	GND	Ground
99	99	CPU A (0)	CPU address [0]
100	100	CPU A (1)	CPU address [1]
101	101	CPU A (2)	CPU address [2]
102	102	CPU A (3)	CPU address [3]
103	103	CPU A (4)	CPU address [4]
104	104	CPU A (5)	CPU address [5]
105	105	CPU A (6)	CPU address [6]
106	106	CPU A (7)	CPU address [7]
107	107	CPU A (8)	CPU address [8]
108	108	CPU A (9)	CPU address [9]
109	109	Res (CPU A10)	Reserve (CPU address [10])
110	110	Res (CPU A11)	Reserve (CPU address [11])
111	111	+3VD	+3.3 V
112	112	+3VD	+3.3 V
113	113	*HWR	CPU high bite write strobe
114	114	*LWR	CPU low bite write strobe
115	115	*RD	CPU read strobe
116	116	*AS	CPU address strobe

Pin No.		Signal Name	Description
CN1000	CN2000		
117	117	GND	Ground
118	118	GND	Ground
119	119	*CS3	CPU area 3 chip select
120	120	*CS4	CPU area 4 chip select
121	121	*CS5SPC	SCSI chip select
122	122	*CSUSB	USB chip select
123	123	*IF_RD	INTERFACE Board version & SCSI-ID read
124	124	*TRMPWR	SCSI terminator power switch
125	125	R_MCLK	Carriage motor clock
126	126	C_MCLK	Conveyor motor clock
127	127	LED CLK	LED data control clock
128	128	LED DATA	LED data
129	129	*WAIT	CPU wait signal
130	130	GND	Ground
131	131	*INT0	CPU interrupt 0 (USB)
132	132	*INT1	CPU interrupt 1 (USB)
133	133	*INT3	CPU interrupt 3 (Front GA-SENSOR)
134	134	*INT4	CPU interrupt 4 (Back GA-SENSOR)
135	135	*INT5	CPU interrupt 5 (GA-IMAGE)
136	136	*RESET	System reset
137	137	TXD0	Serial interface TXD 0
138	138	RXD0	Serial interface RXD 0
139	139	GND	Ground
140	140	GND	Ground

CN1001 [CONTROL Board] - CN3004 [CIS RELAY Board]

Pin No.		Signal Name	Description
CN1001	CN3004		
1	26	GND	Ground
2	25	OS16	Back CIS CH16 output
3	24	GND	Ground
4	23	OS15	Back CIS CH15 output
5	22	GND	Ground
6	21	OS14	Back CIS CH14 output
7	20	GND	Ground
8	19	OS13	Back CIS CH13 output
9	18	GND	Ground
10	17	OS12	Back CIS CH12 output
11	16	GND	Ground
12	15	OS11	Back CIS CH11 output
13	14	GND	Ground
14	13	OS10	Back CIS CH10 output
15	12	GND	Ground
16	11	OS9	Back CIS CH9 output
17	10	GND	Ground
18	9	OS8	Back CIS CH8 output
19	8	GND	Ground
20	7	OS7	Back CIS CH7 output
21	6	GND	Ground
22	5	OS6	Back CIS CH6 output
23	4	GND	Ground
24	3	OS5	Back CIS CH5 output
25	2	GND	Ground
26	1	OS4	Back CIS CH4 output

CN1002 [CONTROL Board] - CN3005 [CIS RELAY Board]

Pin No.		Signal Name	Description
CN1002	CN3005		
1	24	OS3	Back CIS CH3 output
2	23	GND	Ground
3	22	OS2	Back CIS CH2 output
4	21	GND	Ground
5	20	OS1	Back CIS CH1 output
6	19	GND	Ground
7	18	*DUPLEX	Back CIS exist
8	17	A4/*A3	CIS size A4 or A3
9	16	GND	Ground
10	15	PHI_ICG	Back CIS ICG pulse
11	14	PHI_ST	Back CIS storage pulse
12	13	PHI_SH	Back CIS shift pulse
13	12	GND	Ground
14	11	PHI_CP-	Back CIS clamp pulse LVDS (-)
15	10	PHI_CP+	Back CIS clamp pulse LVDS (+)
16	9	PHI_RS-	Back CIS reset pulse LVDS (-)
17	8	PHI_RS+	Back CIS reset pulse LVDS (+)
18	7	PHI_M-	Back CIS clock LVDS (-) (5 MHz)
19	6	PHI_M+	Back CIS clock LVDS (+) (5 MHz)
20	5	GND	Ground
21	4	5VP	+5 V
22	3	5VP	+5 V
23	2	+12V_2	+12 V
24	1	+12V_2	+12 V

CN1006 [CONTROL Board] - CN4007 [DRIVE Board]

Pin No.		Signal Name	Description
CN1006	CN4007		
1	1	24VIL	+24 V (interlock switch)
2	2	PGND	Ground
3	3	+24V	+24 V
4	4	+14V	+14 V
5	5	GND	Ground
6	6	+5V	+5 V
7	7	+5V	+5 V
8	8	GND	Ground
9	9	GND	Ground
10	10	+3V	+3.3 V
11	11	+3V	+3.3 V
12	12	GND	Ground
13	13	GND	Ground

CN1007 [CONTROL Board] - CN4001 [DRIVE Board]

Pin No.		Signal Name	Description
CN1007	CN4001		
1	36	12V_OVP1	+12 V
2	35	12V_OVP2	+12 V
3	34	DOOR1	ADF door switch (H: Door open)
4	33	DOOR2 (N.C.)	Not used
5	32	(N.C.)	Not used
6	31	BLAMP_ON	Back lamp on
7	30	DRV_VER0	DRIVE Board version [0]
8	29	DRV_VER1	DRIVE Board version [1]
9	28	FANERR	Fan error
10	27	*SLEEP1	Sleep signal 1
11	26	*SLEEP3	Sleep signal 2
12	25	F_M1	Feed motor mode [1]
13	24	F_M2	Feed motor mode [2]
14	23	F_M3	Feed motor mode [3]
15	22	F_CW	Feed motor CW/CCW
16	21	F_ENABLE	Feed motor enable
17	20	F_MCLK	Feed motor clock
18	19	F_MVRE	Feed motor current control
19	18	GND	Ground
20	17	C_M1	Conveyor motor mode [1]
21	16	C_M2	Conveyor motor mode [2]
22	15	C_M3	Conveyor motor mode [3]
23	14	C_CW	Conveyor motor CW/CCW
24	13	C_ENABLE	Conveyor motor enable
25	12	C_MCLK	Conveyor motor clock
26	11	C_MVRE	Conveyor motor current control
27	10	GND	Ground
28	9	R_M1	Carriage motor mode [1]
29	8	R_M2	Carriage motor mode [2]
30	7	R_M3	Carriage motor mode [3]
31	6	R_CW	Carriage motor CW/CCW
32	5	R_ENABLE	Carriage motor enable
33	4	R_MCLK	Carriage motor clock
34	3	R_MVRE	Carriage motor current control
35	2	GND	Ground
36	1	*RESET3	System reset

CN1008 [CONTROL Board] - CN4002 [DRIVE Board]

Pin No.		Signal Name	Description
CN1008	CN4002		
1	14	FB_COVER	Flatbed cover detect
2	13	GND	Ground
3	12	12V_1	+12 V
4	11	5V_P	+5 V
5	10	*KEY1	Key input
6	9	*LED_RED	LED (Red) enable
7	8	*LED_GRN	LED (Green) enable
8	7	BUZZER	Buzzer
9	6	FBSIZE1 (N.C)	Not used
10	5	FBSIZE2 (N.C)	Not used
11	4	FBSIZE3 (N.C)	Not used
12	3	FBSIZE4 (N.C)	Not used
13	2	FBSIZE5 (N.C)	Not used
14	1	FBSIZE6 (N.C)	Not used

CN1009 [CONTROL Board] - CN5022 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN1009	CN5022		
1	22	*PEXIST	Paper sensor (L: Paper exist)
2	21	PSIZE5	Size detector 5 (H: Interception)
3	20	PSIZE4	Size detector 4 (H: Interception)
4	19	PSIZE3	Size detector 3 (H: Interception)
5	18	PSIZE2	Size detector 2 (H: Interception)
6	17	PSIZE1	Size detector 1 (H: Interception)
7	16	5VSLP	+5 V
8	15	5VSLP	+5 V
9	14	GND	Ground
10	13	GND	Ground
11	12	RETARD_REL	Retard release detector
12	11	HOPPER_HOME	Hopper home detector
13	10	PHEAD	Starting sensor (H: Paper exist)
14	9	SKEWL	Skew left sensor (H: Paper exist)
15	8	SKEWR	Skew right sensor (H: Paper exist)
16	7	PEXIT	Ending sensor (H: Paper exist)
17	6	24VIL	+24 V (Interlock switch)
18	5	5VSLP	+5 V
19	4	JSGAIN1	Double feed detector gain
20	3	JS_CLK	Double feed detector clock
21	2	GND	Ground
22	1	GND	Ground

CN1010 [CONTROL Board] - CN5035 [CARRIAGE HOME DETECTOR Board]

Pin No.		Signal Name	Description
CN1010	CN5035		
1	1	GND	Ground
2	2	CRHOME	Carriage home detector
3	3	5VSLP	+5 V

CN1003 [CONTROL Board] - CN3001 [CARRIAGE RELAY Board]

Pin No.		Signal Name	Description
CN1003	CN3001		
1	32	GND	Ground
2	31	OS16	Front CIS CH16 output
3	30	GND	Ground
4	29	OS15	Front CIS CH15 output
5	28	GND	Ground
6	27	OS14	Front CIS CH14 output
7	26	GND	Ground
8	25	OS13	Front CIS CH13 output
9	24	GND	Ground
10	23	OS12	Front CIS CH12 output
11	22	GND	Ground
12	21	OS11	Front CIS CH11 output
13	20	GND	Ground
14	19	OS10	Front CIS CH10 output
15	18	GND	Ground
16	17	OS9	Front CIS CH9 output
17	16	GND	Ground
18	15	OS8	Front CIS CH8 output
19	14	GND	Ground
20	13	OS7	Front CIS CH7 output
21	12	GND	Ground
22	11	OS6	Front CIS CH6 output
23	10	GND	Ground
24	9	OS5	Front CIS CH5 output
25	8	GND	Ground
26	7	OS4	Front CIS CH4 output
27	6	GND	Ground
28	5	OS3	Front CIS CH3 output
29	4	GND	Ground
30	3	OS2	Front CIS CH2 output
31	2	GND	Ground
32	1	OS1	Front CIS CH1 output

CN1015 [CONTROL Board] - CN3002 [CARRIAGE RELAY Board]

Pin No.		Signal Name	Description
CN1015	CN3002		
1	22	PHI_ICG	Front CIS ICG pulse
2	21	GND	Ground
3	20	PHI_ST	Front CIS storage pulse
4	19	GND	Ground
5	18	PHI_SH	Front CIS shift pulse
6	17	GND	Ground
7	16	PHI_CP-	Front CIS clamp pulse LVDS (-)
8	15	PHI_CP+	Front CIS clamp pulse LVDS (+)
9	14	PHI_RS-	Front CIS reset pulse LVDS (-)
10	13	PHI_RS+	Front CIS reset pulse LVDS (+)
11	12	PHI_M-	Front CIS clock LVDS (-) (5 MHz)
12	11	PHI_M+	Front CIS clock LVDS (+) (5 MHz)
13	10	GND	Ground
14	9	5VP	+5 V
15	8	5VP	+5 V
16	7	12V_1	+12 V
17	6	12V_1	+12 V
18	5	PGND	Ground
19	4	PGND	Ground
20	3	+24V	+24 V
21	2	+24V	+24 V
22	1	FLAMP_ON5	Front lamp switch

CN1014 [CONTROL Board] - CN5004 [OUTER CONVEYOR RELAY Board]

Pin No.		Signal Name	Description
CN1014	CN5004		
1	30	+3V	+3.3 V
2	29	GND	Ground
3	28	IPD (15)	CPU data for imprinter [15]
4	27	IPD (14)	CPU data for imprinter [14]
5	26	IPD (13)	CPU data for imprinter [13]
6	25	IPD (12)	CPU data for imprinter [12]
7	24	IPD (11)	CPU data for imprinter [11]
8	23	IPD (10)	CPU data for imprinter [10]
9	22	IPD (9)	CPU data for imprinter [9]
10	21	IPD (8)	CPU data for imprinter [8]
11	20	IPADR (0)	CPU address for imprinter [0]
12	19	*IP_HWR	CPU write signal for imprinter
13	18	IMPCLK	Imprinter clock
14	17	*CSIMPR1	Imprnter chip select
15	16	*IP_RD	CPU read signal for imprinter
16	15	*RESET	System reset
17	14	GND	Ground
18	13	24VIL	+24 V (Interlock switch)
19	12	GND	Ground
20	11	5VSLP	+5 V
21	10	5VSLP	+5 V
22	9	STBY	Waiting sensor
23	8	HOPPER_POS (N.C.)	Not used
24	7	GND	Ground
25	6	GND	Ground
26	5	BKDOOR (N.C.)	Not used
27	4	12V_2	+12 V
28	3	JS_DATA	Double feed detector
29	2	JS_GAIN2	Not used
30	1	GND	Ground

CN2007 [INTERFACE Board]: DIMM

Pin No.	Signal Name	Description
1	VSS	Ground
2	DQ0	SDRAM data [0]
3	DQ1	SDRAM data [1]
4	DQ2	SDRAM data [2]
5	DQ3	SDRAM data [3]
6	VDD	+3.3 V
7	DQ4	SDRAM data [4]
8	DQ5	SDRAM data [5]
9	DQ6	SDRAM data [6]
10	DQ7	SDRAM data [7]
11	DQ8	SDRAM data [8]
12	VSS	Ground
13	DQ9	SDRAM data [9]
14	DQ10	SDRAM data [10]
15	DQ11	SDRAM data [11]
16	DQ12	SDRAM data [12]
17	DQ13	SDRAM data [13]
18	VDD	+3.3 V
19	DQ14	SDRAM data [14]
20	DQ15	SDRAM data [15]
21	CB0 (N.C.)	Not used
22	CB1 (N.C.)	Not used
23	VSS	Ground
24	N.C.	Not used
25	N.C.	Not used
26	VDD	+3.3 V
27	*WE	DIMM write enable
28	DQMB0	Byte data mask 0
29	DQMB1	Byte data mask 1
30	*CS0	Chip select 0
31	DNU (N.C.)	Not used
32	VSS	Ground
33	A0	SDRAM address [0]
34	A2	SDRAM address [2]
35	A4	SDRAM address [4]
36	A6	SDRAM address [6]
37	A8	SDRAM address [8]
38	A10	SDRAM address [10]
39	BA1	Bank select address 1
40	VDD	+3.3 V
41	VDD	+3.3 V
42	CLK0	Clock input 0
43	VSS	Ground
44	DNU (N.C.)	Not used
45	*CS2	Chip select 2
46	DQMB2	Byte data mask 2
47	DQMB3	Byte data mask 3
48	DNU (N.C.)	Not used
49	VDD	+3.3 V
50	N.C.	Not used
51	N.C.	Not used
52	CB2	Not used
53	CB3	Not used
54	VSS	Ground
55	DQ16	SDRAM data [16]
56	DQ17	SDRAM data [17]

Pin No.	Signal Name	Description
57	DQ18	SDRAM data [18]
58	DQ19	SDRAM data [19]
59	VDD	+3.3 V
60	DQ20	SDRAM data [20]
61	N.C.	Not used
62	N.C.	Not used
63	CKE1	Clock enable
64	VSS	Ground
65	DQ21	SDRAM data [21]
66	DQ22	SDRAM data [22]
67	DQ23	SDRAM data [23]
68	VSS	Ground
69	DQ24	SDRAM data [24]
70	DQ25	SDRAM data [25]
71	DQ26	SDRAM data [26]
72	DQ27	SDRAM data [27]
73	VDD	+3.3 V
74	DQ28	SDRAM data [28]
75	DQ29	SDRAM data [29]
76	DQ30	SDRAM data [30]
77	DQ31	SDRAM data [31]
78	VSS	Ground
79	CLK2	Clock input 2
80	N.C.	Not used
81	WP (N.C.)	Not used
82	SDA	Data input/output for serial presence detect
83	SCL	Clock input for serial presence detect
84	VDD	+3.3 V
85	VSS	Ground
86	DQ32	SDRAM data [32]
87	DQ33	SDRAM data [33]
88	DQ34	SDRAM data [34]
89	DQ35	SDRAM data [35]
90	VDD	+3.3 V
91	DQ36	SDRAM data [36]
92	DQ37	SDRAM data [37]
93	DQ38	SDRAM data [38]
94	DQ39	SDRAM data [39]
95	DQ40	SDRAM data [40]
96	VSS	Ground
97	DQ41	SDRAM data [41]
98	DQ42	SDRAM data [42]
99	DQ43	SDRAM data [43]
100	DQ44	SDRAM data [44]
101	DQ45	SDRAM data [45]
102	VDD	+3.3 V
103	DQ46	SDRAM data [46]
104	DQ47	SDRAM data [47]
105	CB4 (N.C.)	Not used
106	CB5 (N.C.)	Not used
107	VSS	Ground
108	N.C.	Not used
109	N.C.	Not used
110	VDD	+3.3 V
111	*CAS	Column address strobe
112	DQMB4	Byte data mask 4

Pin No.	Signal Name	Description
113	DQMB5	Byte data mask 5
114	*CS1	Chip select 1
115	*RAS	Row address strobe
116	VSS	Ground
117	A1	SDRAM address [1]
118	A3	SDRAM address [3]
119	A5	SDRAM address [5]
120	A7	SDRAM address [7]
121	A9	SDRAM address [9]
122	BA0	Bank select address 0
123	A11	SDRAM address [11]
124	VDD	+3.3 V
125	CK1	Clock input 1
126	A12	SDRAM address [12]
127	VSS	Ground
128	CKE0	Clock enable 0
129	*CS3	Chip select 3
130	DQMB6	Byte data mask 6
131	DQMB7	Byte data mask 7
132	A13	SDRAM address [13]
133	VDD	+3.3 V
134	N.C.	Not used
135	N.C.	Not used
136	CB6	Not used
137	CB7	Not used
138	VSS	Ground
139	DQ48	SDRAM data [48]
140	DQ49	SDRAM data [49]
141	DQ50	SDRAM data [50]
142	DQ51	SDRAM data [51]
143	VDD	+3.3 V
144	DQ52	SDRAM data [52]
145	N.C.	Not used
146	N.C.	Not used
147	REGE (N.C.)	Not used
148	VSS	Ground
149	DQ53	SDRAM data [53]
150	DQ54	SDRAM data [54]
151	DQ55	SDRAM data [55]
152	VSS	Ground
153	DQ56	SDRAM data [56]
154	DQ57	SDRAM data [57]
155	DQ58	SDRAM data [58]
156	DQ59	SDRAM data [59]
157	VDD	+3.3 V
158	DQ60	SDRAM data [60]
159	DQ61	SDRAM data [61]
160	DQ62	SDRAM data [62]
161	DQ63	SDRAM data [63]
162	VSS	Ground
163	CK3	Clock input 3
164	N.C.	Not used
165	SA0	Address [0] input for EEPROM
166	SA1	Address [1] input for EEPROM
167	SA2	Address [2] input for EEPROM
168	VDD	+3.3 V

CN2008 [INTERFACE Board]: SCSI Interface

Pin No.	Signal Name	Description
1	GND	Ground
2	GND	Ground
3	GND	Ground
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	GND	Ground
10	GND	Ground
11	GND	Ground
12	N.C.	Not used
13	N.C.	Not used
14	N.C.	Not used
15	GND	Ground
16	GND	Ground
17	GND	Ground
18	GND	Ground
19	GND	Ground
20	GND	Ground
21	GND	Ground
22	GND	Ground
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	DB (0)	SCSI data [0]
27	DB (1)	SCSI data [1]
28	DB (2)	SCSI data [2]
29	DB (3)	SCSI data [3]
30	DB (4)	SCSI data [4]
31	DB (5)	SCSI data [5]
32	DB (6)	SCSI data [6]
33	DB (7)	SCSI data [7]
34	*DBP	SCSI data parity
35	GND	Ground
36	GND	Ground
37	N.C.	Not used
38	TERM_ POWER	Terminator power
39	N.C.	Not used
40	GND	Ground
41	*ATN	SCSI control signal (Attention)
42	GND	Ground
43	*BSY	SCSI control signal (Busy)
44	*ACK	SCSI control signal (Acknowledge)
45	*RST	SCSI control signal (Reset)
46	*MSG	SCSI control signal (Message)
47	*SEL	SCSI control signal (Select)
48	*C/D	SCSI control signal (Control/Data)
49	*REQ	SCSI control signal (Request)
50	*I/O	SCSI control signal (Input/Output)

CN2009 [INTERFACE Board]: USB Interface

Pin No.	Signal Name	Description
1	VBUS	USB bus detect signal
2	DM	USB data -
3	DP	USB data +
4	GND	Ground

CN3003 [CARRIAGE RELAY Board] - CIS (Front)

Pin No.		Signal Name	Description
CN3003	CIS (Front)		
1	-	GND	Ground
2	-	OS16	Front CIS CH16 output
3	-	OS15	Front CIS CH15 output
4	-	GND	Ground
5	-	OS14	Front CIS CH14 output
6	-	OS13	Front CIS CH13 output
7	-	GND	Ground
8	-	OS12	Front CIS CH12 output
9	-	OS11	Front CIS CH11 output
10	-	GND	Ground
11	-	OS10	Front CIS CH10 output
12	-	OS9	Front CIS CH9 output
13	-	GND	Ground
14	-	OS8	Front CIS CH8 output
15	-	OS7	Front CIS CH7 output
16	-	GND	Ground
17	-	OS6	Front CIS CH6 output
18	-	OS5	Front CIS CH5 output
19	-	GND	Ground
20	-	OS4	Front CIS CH4 output
21	-	OS3	Front CIS CH3 output
22	-	GND	Ground
23	-	OS2	Front CIS CH2 output
24	-	OS1	Front CIS CH1 output
25	-	GND	Ground
26	-	PHI_ICG	Front CIS ICG pulse
27	-	PHI_ST	Front CIS storage pulse
28	-	PHI_SH	Front CIS shift pulse
29	-	GND	Ground
30	-	PHI_CP-	Front CIS clamp pulse LVDS (-)
31	-	PHI_CP+	Front CIS clamp pulse LVDS (+)
32	-	PHI_RS-	Front CIS reset pulse LVDS (-)
33	-	PHI_RS+	Front CIS reset pulse LVDS (+)
34	-	PHI_M-	Front CIS clock LVDS (-) (5 MHz)
35	-	PHI_M+	Front CIS clock LVDS (+) (5 MHz)
36	-	GND	Ground
37	-	5VP	+5 V
38	-	5VP	+5 V
39	-	12V_1	+12 V
40	-	12V_1	+12 V

CN3000 [CARRIAGE RELAY Board] - Lamp Drive Board (for front side)

Pin No.		Signal Name	Description
CN3000	Lamp Drive		
1	-	+24V	+24 V
2	-	FLAMP_ON5	Front lamp switch (H: Lamp ON)
3	-	GND	Ground

CN3006 [CIS RELAY Board] - CIS (Back)

Pin No.		Signal Name	Description
CN3006	CIS (Back)		
1	-	12V_2	+12 V
2	-	12V_2	+12 V
3	-	5VP	+5 V
4	-	5VP	+5 V
5	-	GND	Ground
6	-	PHI_M+	Back CIS clock LVDS (+) (5 MHz)
7	-	PHI_M-	Back CIS clock LVDS (-) (5 MHz)
8	-	PHI_RS+	Back CIS reset pulse LVDS (+)
9	-	PHI_RS-	Back CIS reset pulse LVDS (-)
10	-	PHI_CP+	Back CIS clamp pulse LVDS (+)
11	-	PHI_CP-	Back CIS clamp pulse LVDS (-)
12	-	GND	Ground
13	-	PHI_SH	Back CIS shift pulse
14	-	PHI_ST	Back CIS storage
15	-	PHI_ICG	Back CIS ICG pulse
16	-	GND	Ground
17	-	OS1	Back CIS CH1 output
18	-	OS2	Back CIS CH2 output
19	-	GND	Ground
20	-	OS3	Back CIS CH3 output
21	-	OS4	Back CIS CH4 output
22	-	GND	Ground
23	-	OS5	Back CIS CH5 output
24	-	OS6	Back CIS CH6 output
25	-	GND	Ground
26	-	OS7	Back CIS CH7 output
27	-	OS8	Back CIS CH8 output
28	-	GND	Ground
29	-	OS9	Back CIS CH9 output
30	-	OS10	Back CIS CH10 output
31	-	GND	Ground
32	-	OS11	Back CIS CH11 output
33	-	OS12	Back CIS CH12 output
34	-	GND	Ground
35	-	OS13	Back CIS CH13 output
36	-	OS14	Back CIS CH14 output
37	-	GND	Ground
38	-	OS15	Back CIS CH15 output
39	-	OS16	Back CIS CH16 output
40	-	GND	Ground

CN5029 [POWER RELAY Board] - Lamp Drive Board (for back side)

Pin No.		Signal Name	Description
CN5029	Lamp Drive		
1	-	24VIL	+24 V (Interlock switch)
2	-	BLAMP_ON5	Back lamp switch (H: Lamp ON)
3	-	GND	Ground

CN4004 [DRIVE Board] - CN5023 [PANEL Board]

Pin No.		Signal Name	Description
CN4004	CN5023		
1	1	BUZZER	Buzzer
2	2	GRN_LED	LED (Green) enable (L: LED lighting)
3	3	RED_LED	LED (Red) enable (L: LED lighting)
4	4	KEY1	Key input (L: Key push)
5	5	5VP	+5 V
6	6	12V_1	+12 V
7	7	GND	Ground
8	8	GND	Ground

CN4010 [DRIVE Board] - Carriage Motor

Pin No.		Signal Name	Description
CN4010	Carriage Motor		
1	-	*RA	Carriage motor phase (A-)
2	-	N.C.	Not used
3	-	RCOMA	+24 V (Fuse)
4	-	RA	Carriage motor phase (A+)
5	-	*RB	Carriage motor phase (B-)
6	-	RCOMB	+24 V (Fuse)
7	-	RB	Carriage motor phase (B+)
8	-	N.C.	Not used

CN4008 [DRIVE Board] - CN5025 [POWER RELAY Board]

Pin No.		Signal Name	Description
CN4008	CN5025		
1	1	GND	Ground
2	2	BLAMP_ÖN5	Back lamp switch
3	3	*CA	Conveyor Motor phase (A-)
4	4	CCOMA_MB	+24 V (Interlock switch and Fuse)
5	5	CA	Conveyor Motor phase (A+)
6	6	*CB	Conveyor motor phase (B-)
7	7	CCOMA_MB	+24 V (interlock switch and Fuse)
8	8	CB	Conveyor motor phase (B+)
9	9	*FA	Feed motor phase (A-)
10	10	FCOMA_MB	+24 V (interlock switch and Fuse)
11	11	FA	Feed motor phase (A+)
12	12	*FB	Feed motor phase (B-)
13	13	FCOMA_MB	+24 V (interlock switch and Fuse)
14	14	FB	Feed motor phase (B+)

CN4005 [DRIVE Board] - CN5036 [POWER RELAY Board]

Pin No.		Signal Name	Description
CN4005	CN5036		
1	1	24V	+24 V
2	2	24VIL	+24 V (Interlock switch)

CN5034 [DOCUMENT COVER DETECTOR Board] - CN4017 [DRIVE Board]

Pin No.		Signal Name	Description
CN5034	CN4017		
1	1	GND	Ground
2	2	FB_COVER	Flatbed cover detect (L: Cover open)
3	3	5VP	+5 V
4	4	5VP	+5 V

CN801 [POWER Board] - Inlet

Pin No.		Signal Name	Description
CN801	Inlet		
1	-	NEUTRAL	Neutral
2	-	N.C.	Not used
3	-	LIVE	Live

CN802 [POWER Board] - CN4003 [DRIVE Board]

Pin No.		Signal Name	Description
CN802	CN4003		
1	1	OVP+	Over voltage protect
2	2	P_FANERR (N.C.)	Not used
3	3	GND	Ground
4	4	GND	Ground
5	5	GND	Ground
6	6	+24VPWR	+24 V
7	7	+24VPWR	+24 V
8	8	+24VPWR	+24 V
9	9	*SLEEP_PWR	Sleep POWER (L: Sleep mode)
10	10	OVP-	Over Voltage Protect

CN803 [POWER Board] - FAN

Pin No.		Signal Name	Description
CN803	FAN		
1	-	FAN+	Fan plus power (+24 V)
2	-	N.C.	Not used
3	-	FAN-	Fan minus power

CN5028 [POWER RELAY Board] - Door Switch

Pin No.		Signal Name	Description
CN5028	Door Switch		
1	-	24V	+24 V (Interlock switch: +24 V IN)
2	-	24VDOOR	+24 V (Interlock switch)
3	-	24VDOOR	+24 V (Interlock switch)
4	-	24VIL	+24 V (Interlock switch: +24 V OUT)

CN5031 [POWER RELAY Board] - Conveyor Motor

Pin No.		Signal Name	Description
CN5031	Conveyor Motor		
1	-	*CA	Conveyor motor phase (A-)
2	-	CCOMA	+24 V (interlock switch and Fuse)
3	-	CA	Conveyor motor phase (A+)
4	-	*CB	Conveyor motor phase (B-)
5	-	CCOMB	+24 V (interlock switch and Fuse)
6	-	CB	Conveyor motor phase (B+)

CN5032 [POWER RELAY Board] - Paper Feed Motor

Pin No.		Signal Name	Description
CN5032	Paper Feed Motor		
1	-	*FA	Feed motor phase (A-)
2	-	N.C.	Not used
3	-	FCOMA	+24 V
4	-	FA	Feed motor phase (A+)
5	-	*FB	Feed motor phase (B-)
6	-	FCOMB	+24 V
7	-	FB	Feed motor phase (B+)

CN5001 [OUTER CONVEYOR RELAY Board] - Double Feed Detector (R)

Pin No.		Signal Name	Description
CN5001	Double Feed Detector (R)		
1	-	USOUND_R1	Double feed detector (Receiver1)
2	-	USOUND_R2	Double feed detector (Receiver2)

CN5006 [WAITING SENSOR Board] - CN5002 [OUTER CONVEYOR RELAY Board]

Pin No.		Signal Name	Description
CN5006	CN5002		
1	1	5VSLP	+5 V
2	2	STBY	Waiting sensor (H: Paper exist)
3	3	GND	Ground

CN5003 [OUTER CONVEYOR RELAY Board] - Imprinter (Option)

Pin No.		Signal Name	Description
CN5003	Imprinter		
1	1	+3V	+3.3 V
2	2	GND	Ground
3	3	IPD (15)	CPU data for imprinter [15]
4	4	IPD (14)	CPU data for imprinter [14]
5	5	IPD (13)	CPU data for imprinter [13]
6	6	IPD (12)	CPU data for imprinter [12]
7	7	IPD (11)	CPU data for imprinter [11]
8	8	IPD (10)	CPU data for imprinter [10]
9	9	IPD (9)	CPU data for imprinter [9]
10	10	IPD (8)	CPU data for imprinter [8]
11	11	IPADR (0)	CPU address for imprinter [0]
12	12	*IP_HWR	CPU write signal for imprinter
13	13	IMPCLK	Imprinter clock
14	14	*CSIMPR	Imprnter chip select
15	15	*IP_RD	CPU read signal for imprinter
16	16	*RESET	System reset
17	17	GND	Ground
18	18	+24VIL	+24 V (Interlock switch)

CN5015 [ENDING SENSOR Board] - CN5016 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5015	CN5016		
1	1	5VSLP	+5 V
2	2	PEXIT	Ending sensor (H: Paper exist)
3	3	GND	Ground

CN5012 [STARTING SENSOR Board] - CN5017 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5012	CN5017		
1	1	5VSLP	+5 V
2	2	SKEWR	Skew sensor (Right) H: Paper exist
3	3	PHEAD	Starting sensor H: Paper exist
4	4	SKEWL	Skew sensor (Left) H: Paper exist
5	5	GND	Ground

CN5007 [HOPPER HOME DETECTOR Board] - CN5018 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5007	CN5018		
1	1	5VSLP	+5 V
2	2	5VSLP	+5 V
3	3	HOPPER_HOME	Hopper home detector (H: Home position)
4	4	GND	Ground

Double Feed Detector (G) - CN5021 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
Double Feed Detector (G)	CN5021		
-	1	USOUND_S1	Double feed detector (Generator1)
-	2	USOUND_S2	Double feed detector (Generator2)

CN5014 [HOPPER RELAY Board] - CN5020 [SENSOR RELAY Board]

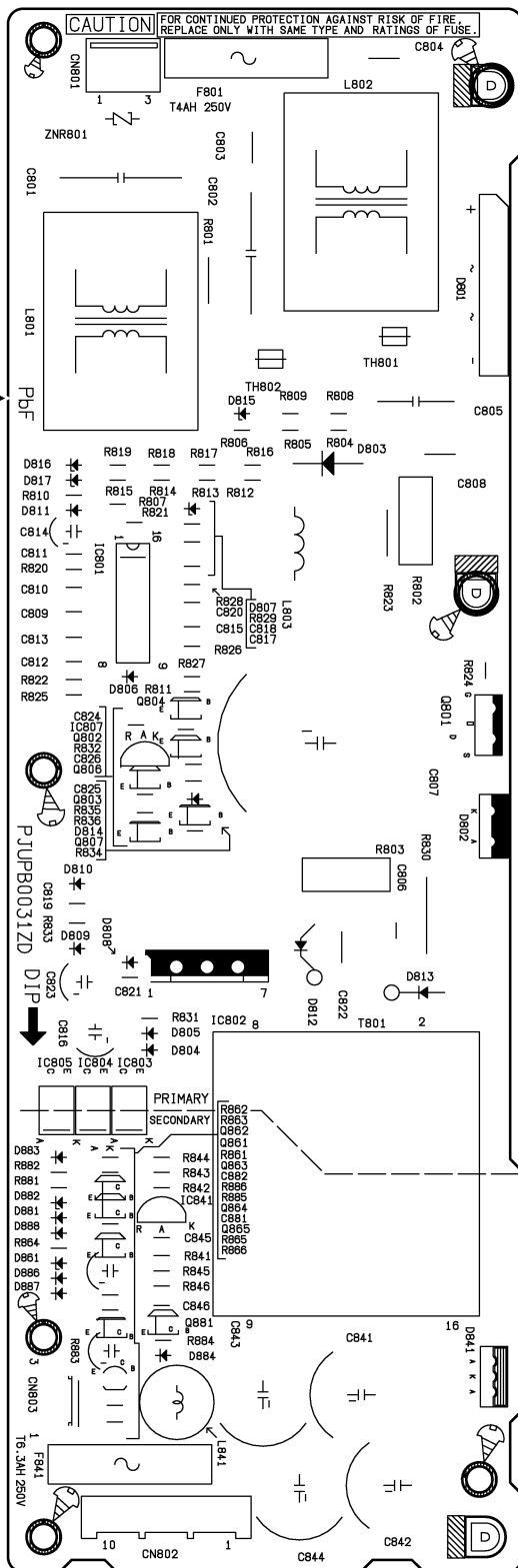
Pin No.		Signal Name	Description
CN5014	CN5020		
1	1	PSIZE4	Size detector 4 (H: Interception)
2	2	PSIZE2	Size detector 2 (H: Interception)
3	3	5VSLP	+5 V
4	4	5VSLP	+5 V
5	5	*PEXIST	Paper sensor
6	6	PSIZE5	Size detector 5 (H: Interception)
7	7	PSIZE3	Size detector 3 (H: Interception)
8	8	PSIZE1	Size detector 1 (H: Interception)
9	9	GND	Ground
10	10	GND	Ground

Paper Sensor - CN5011 [SIZE DETECTOR Board]

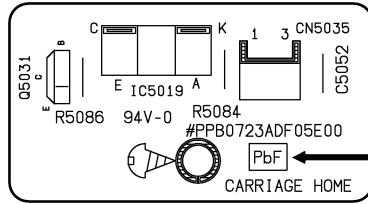
Pin No.		Signal Name	Description
Paper Sensor	CN5011		
-	1	5VSLP	+5 V
-	2	*PEXIST	Paper sensor (L: Paper exist)
-	3	GND	Ground
	4	FG	Frame Ground (to Plate)

CN5010 [SIZE DETECTOR Board] - CN5013 [HOPPER RELAY Board]

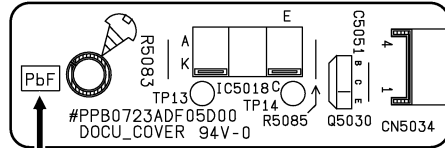
Pin No.		Signal Name	Description
CN5010	CN5013		
1	1	PSIZE1	Size detector 1 (H: Interception)
2	2	GND	Ground
3	3	PSIZE3	Size detector 3 (H: Interception)
4	4	GND	Ground
5	5	PSIZE5	Size detector 5 (H: Interception)
6	6	5VSLP	+5 V
7	7	*PEXIST	Paper sensor (L: Paper exist)
8	8	5VSLP	+5 V
9	9	PSIZE4	Size detector 4 (H: Interception)
10	10	PSIZE2	Size detector 2 (H: Interception)



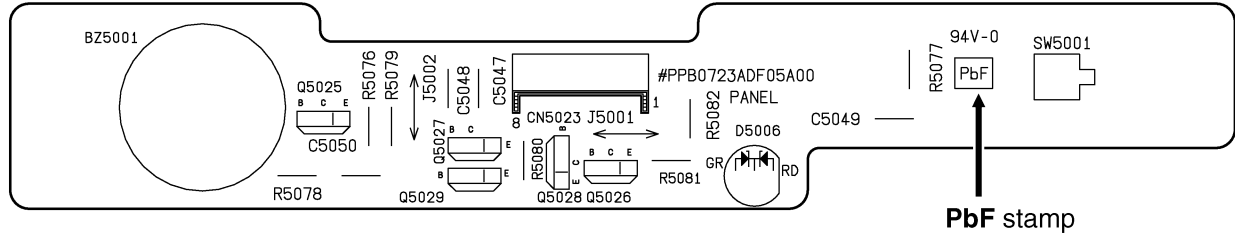
Reducing to 80%.

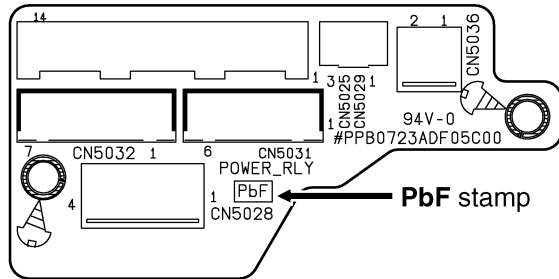


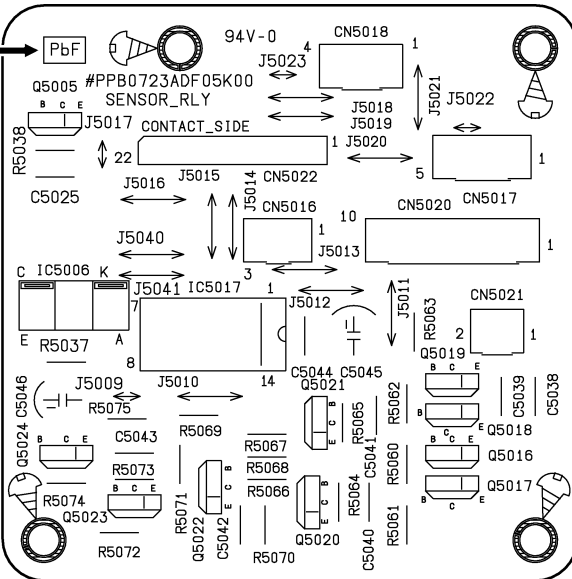
PbF stamp



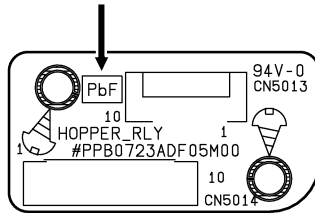
PbF stamp



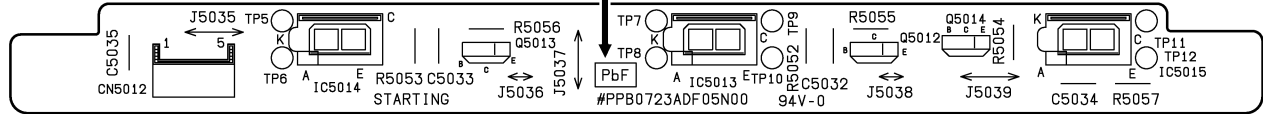




PbF stamp



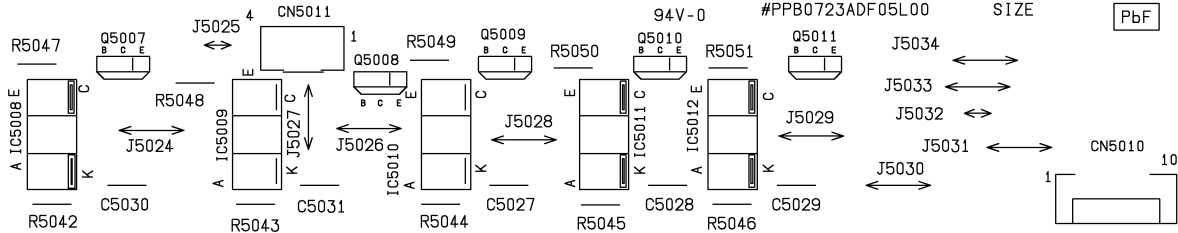
PbF stamp

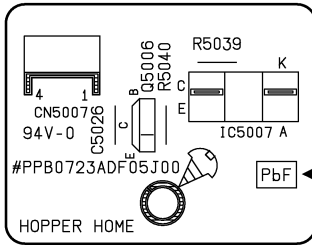


Reducing to 90%.

PbF stamp

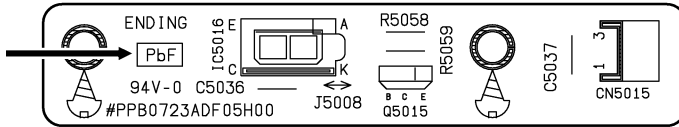
PbF



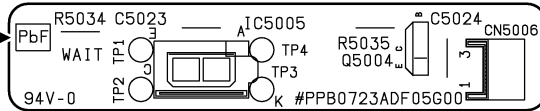


PbF stamp

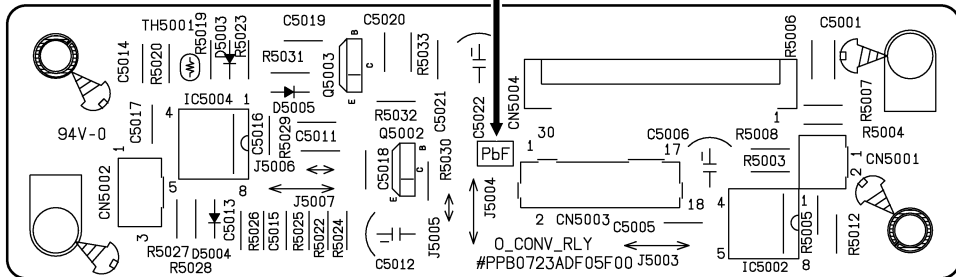
PbF stamp

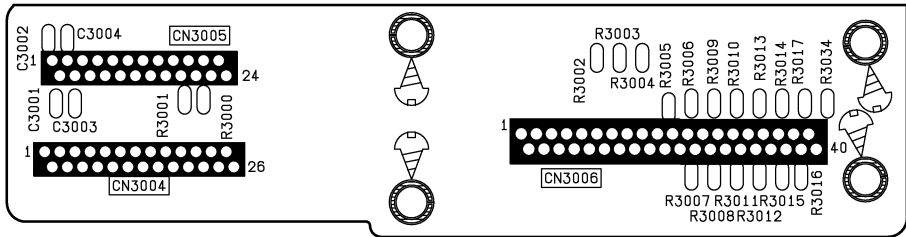


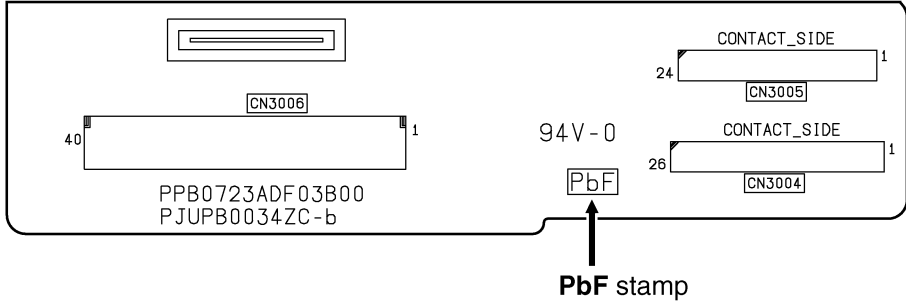
PbF stamp

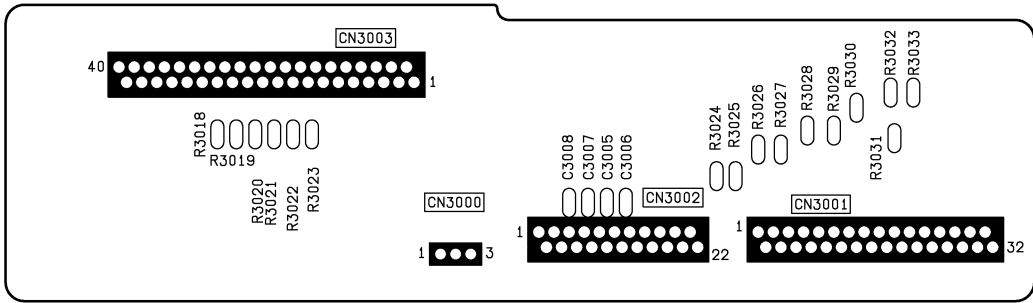


1









PbF stamp

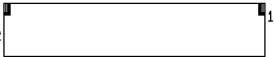
94V-0

PbF



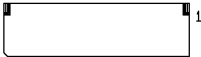
CN3001

32



22

CN3002



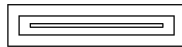
3

CN3000



PPB0723ADF03A00

PJUPB0034ZC-a



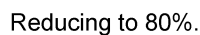
CN3003

1



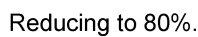
40

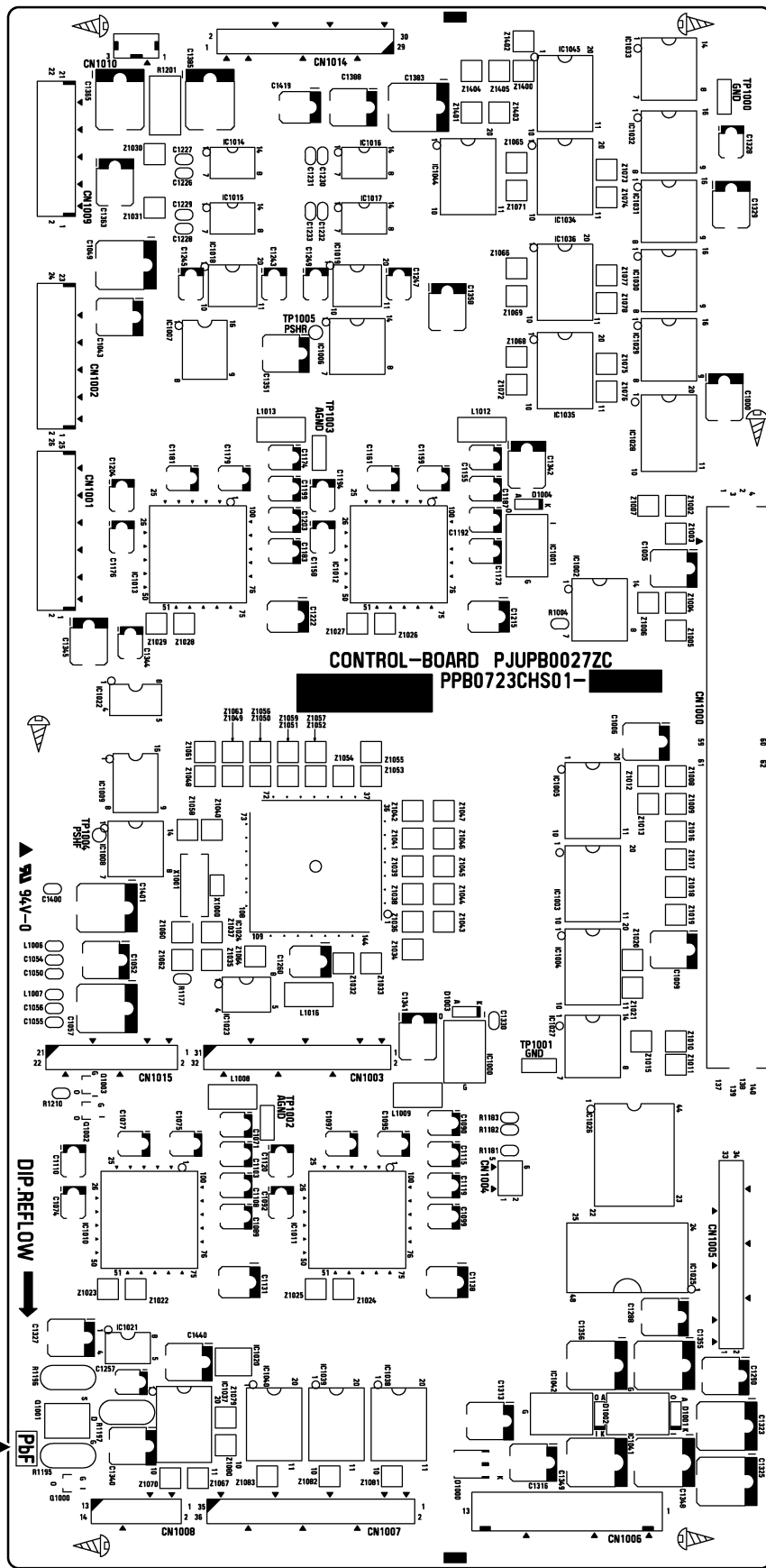




PPB0723CHS02-

DIP.REFLOW 





PbF stamp

Key/Sensor



Key/Sensor Status

STOP/START Key: OFF

Paper Sensor: OFF

Waiting Sensor: OFF

Starting Sensor: OFF

Skew(R) Sensor: OFF

Skew(L) Sensor: OFF

Ending Sensor: OFF

Back Ending Sensor:

Door Switch: ON

Jam Sensor:

Document Cover Detector: OFF

Pointer Detector:

Retard Position Detector: OFF

Hopper Home Detector: OFF

Carriage Home Detector: OFF

Size Detector: A3 (00000)

Switch OFF

No paper

No paper

No paper

No paper

No paper

No paper

Door open

Cover close

Manual feed mode

Out of hopper home position

Out of Carriage home position

Scanning Size

Close

Feed



Test Mode:

Feed

Feed Count: 0

Test Condition

Resolution:

150



dpi

Image Type:

Black & White



Rate with Binary Image



Feeding Speed:

Slow



Paper Size:

Letter



☒ Length Control

☒ Detect Double Feed

☐ Imprinter

CIS LED Setting

LED Color:

White



Side



Simplex



Duplex

START(S)

STOP(T)

Close

Gain

Front:

115

Back:

60

Peak

Front

Red Peak:

Blue Peak:

Green Peak:

Back

Red Peak:

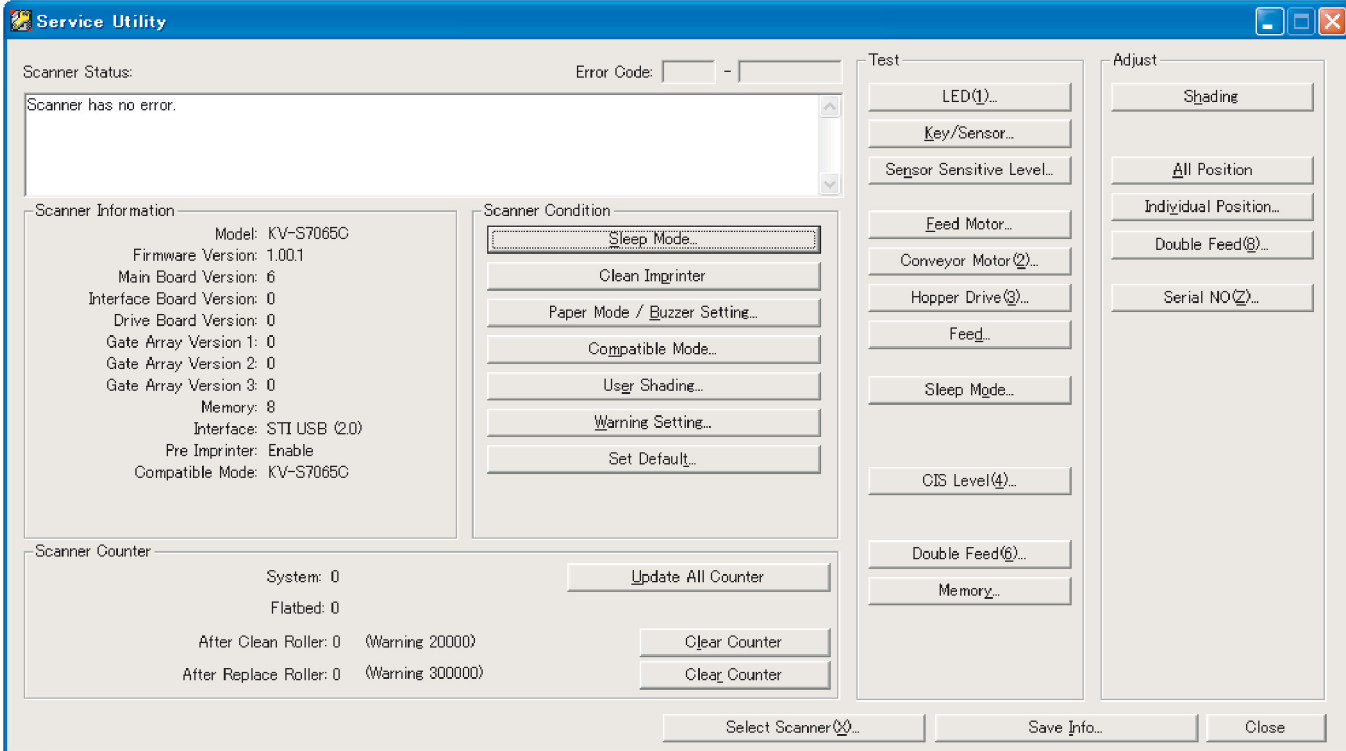
Blue Peak:

Green Peak:

START(S)

STOP(T)

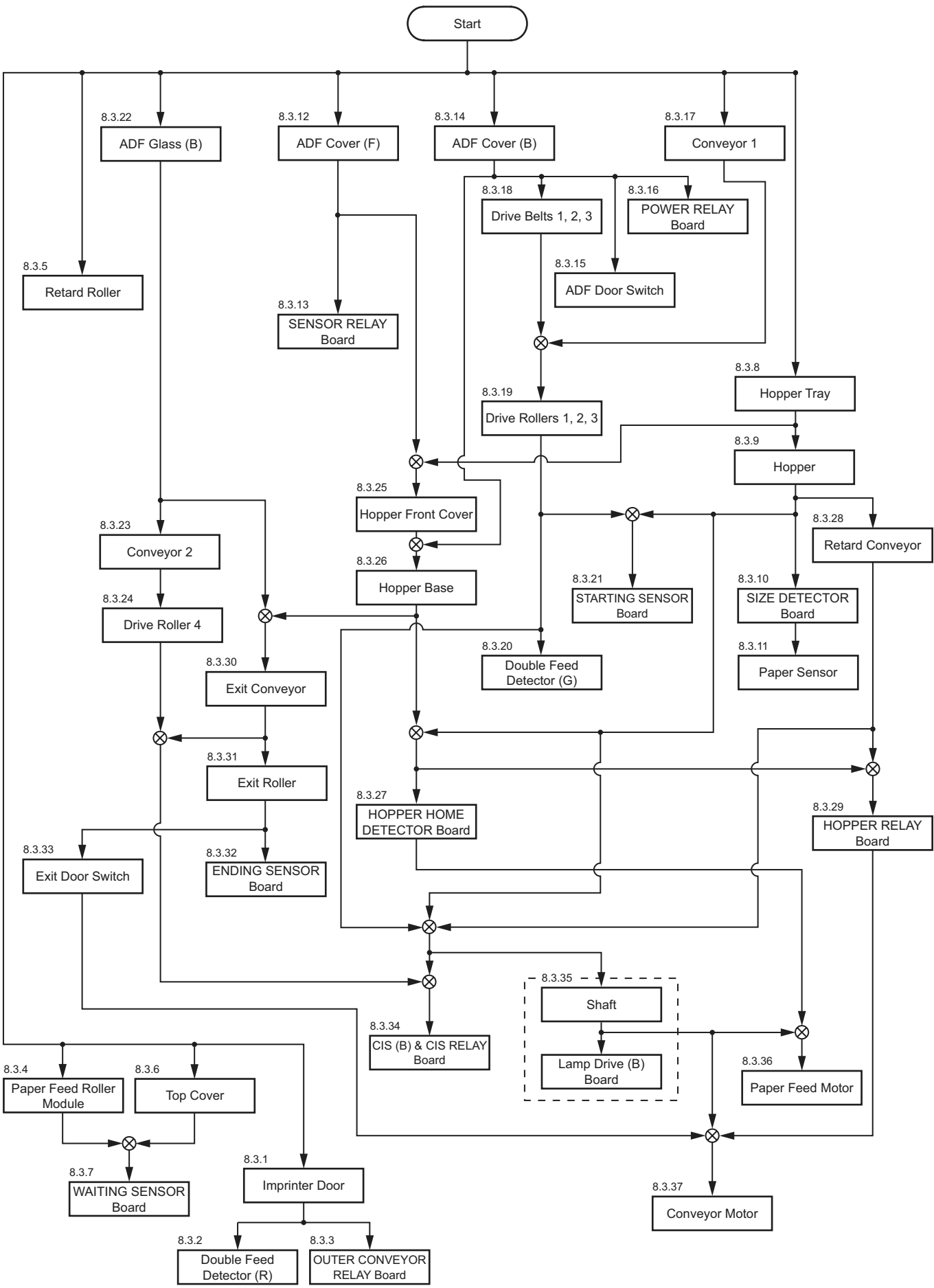
Close

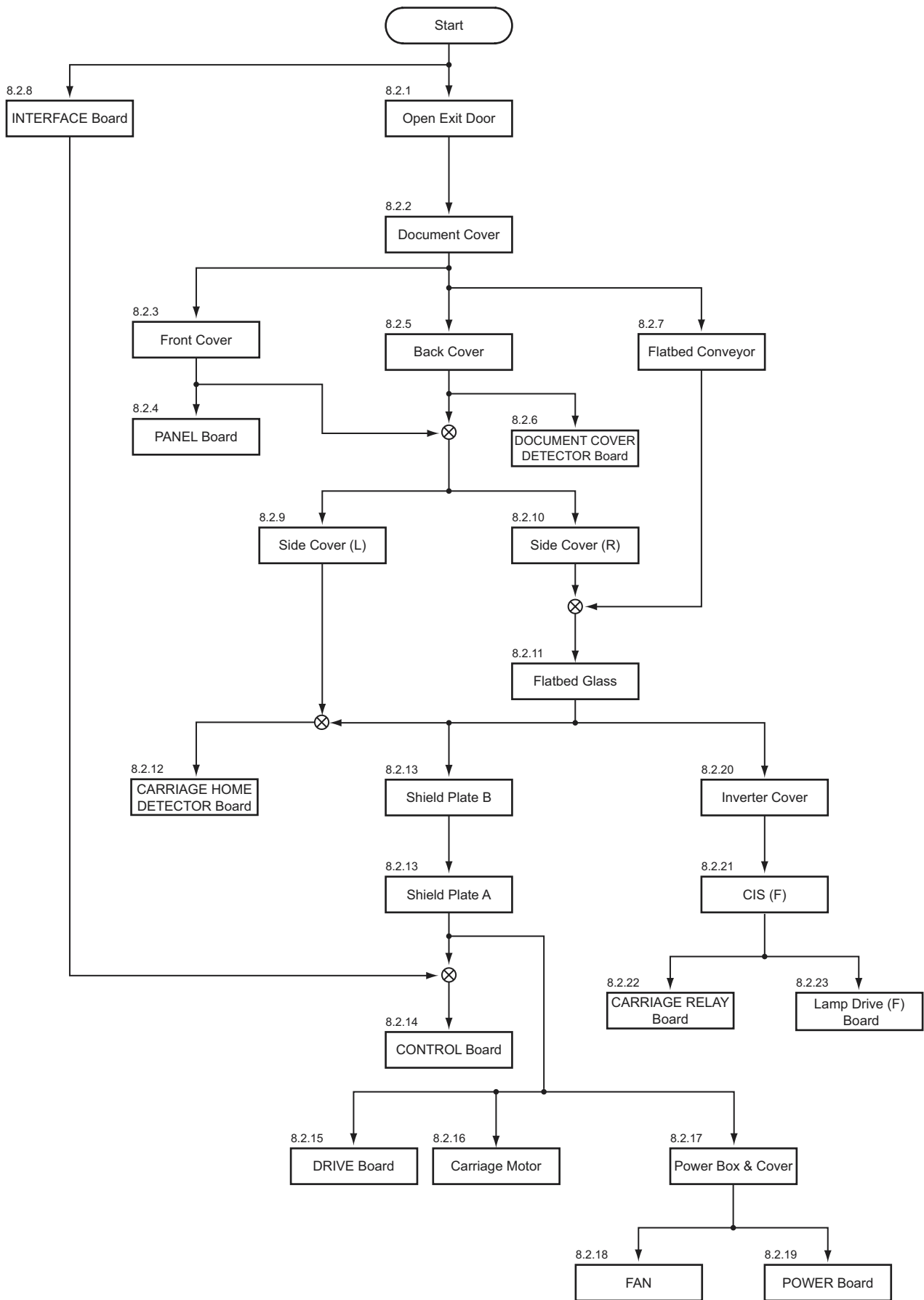


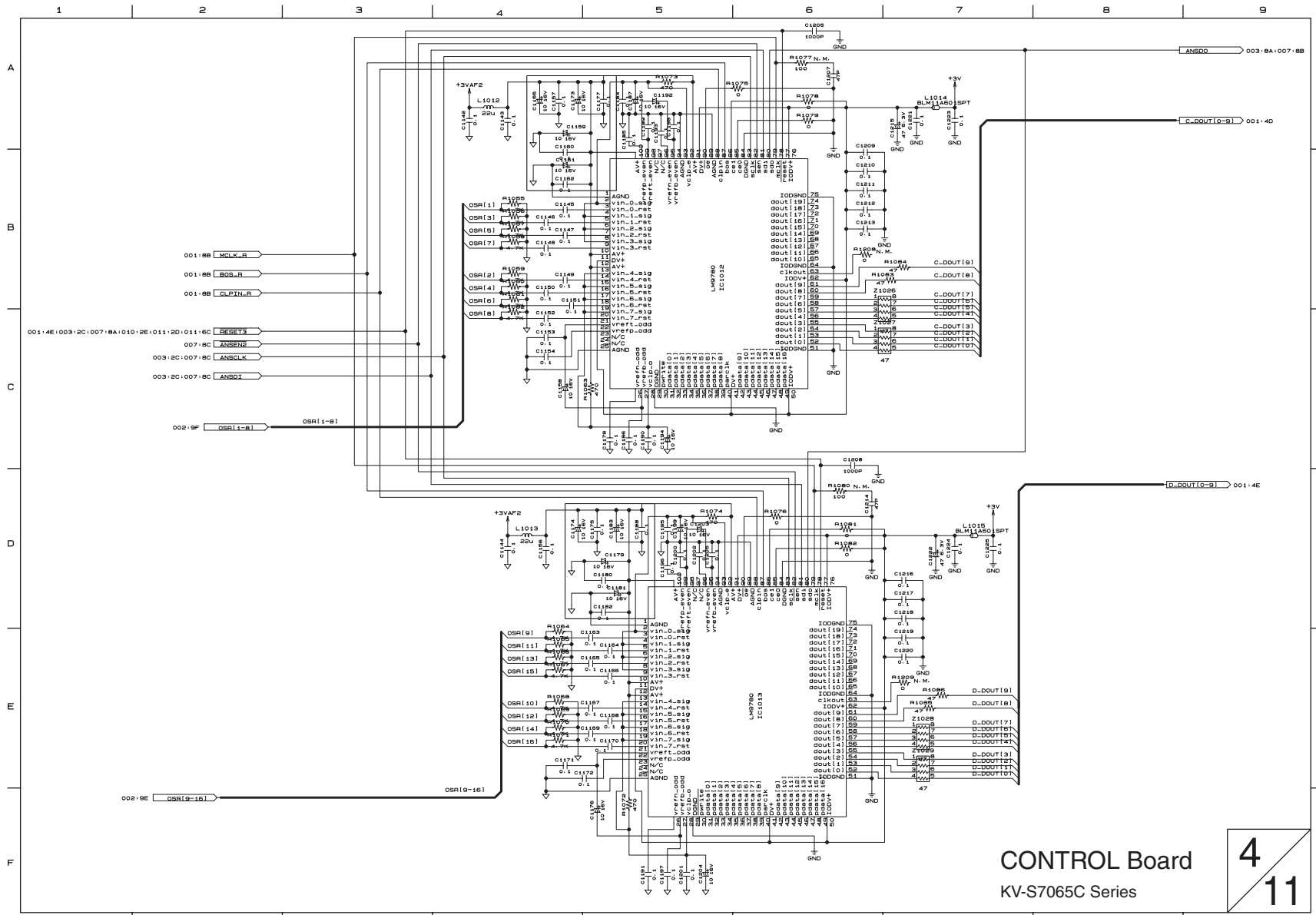
*Fig. 9.1 Main Menu

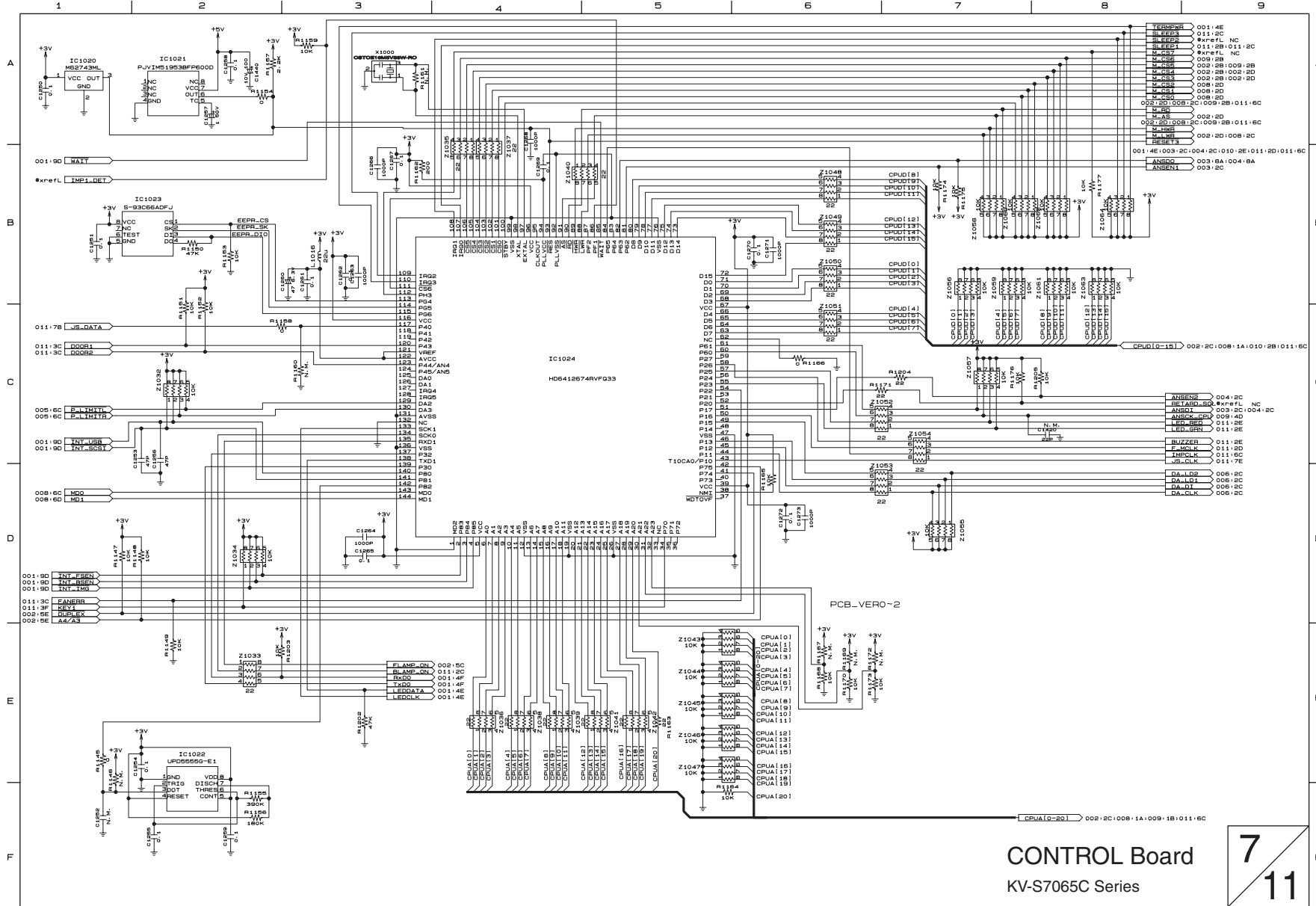
***Note:**

- This is a main menu sample (Fig. 9.1) of the Service Utility software (Version 3.00).
- This software is the latest version at the time when this service manual is issued, but it is subject to change without notice.

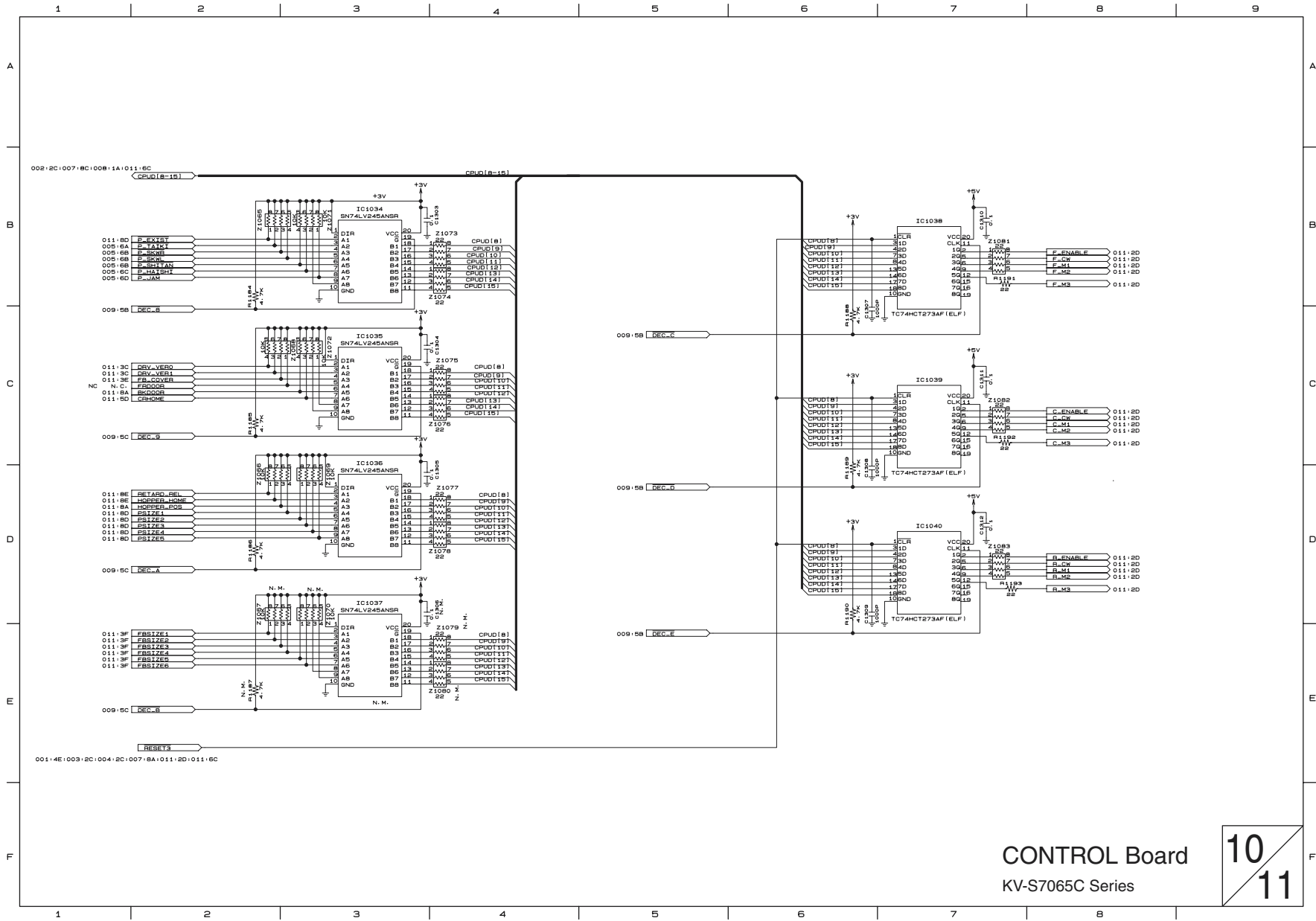




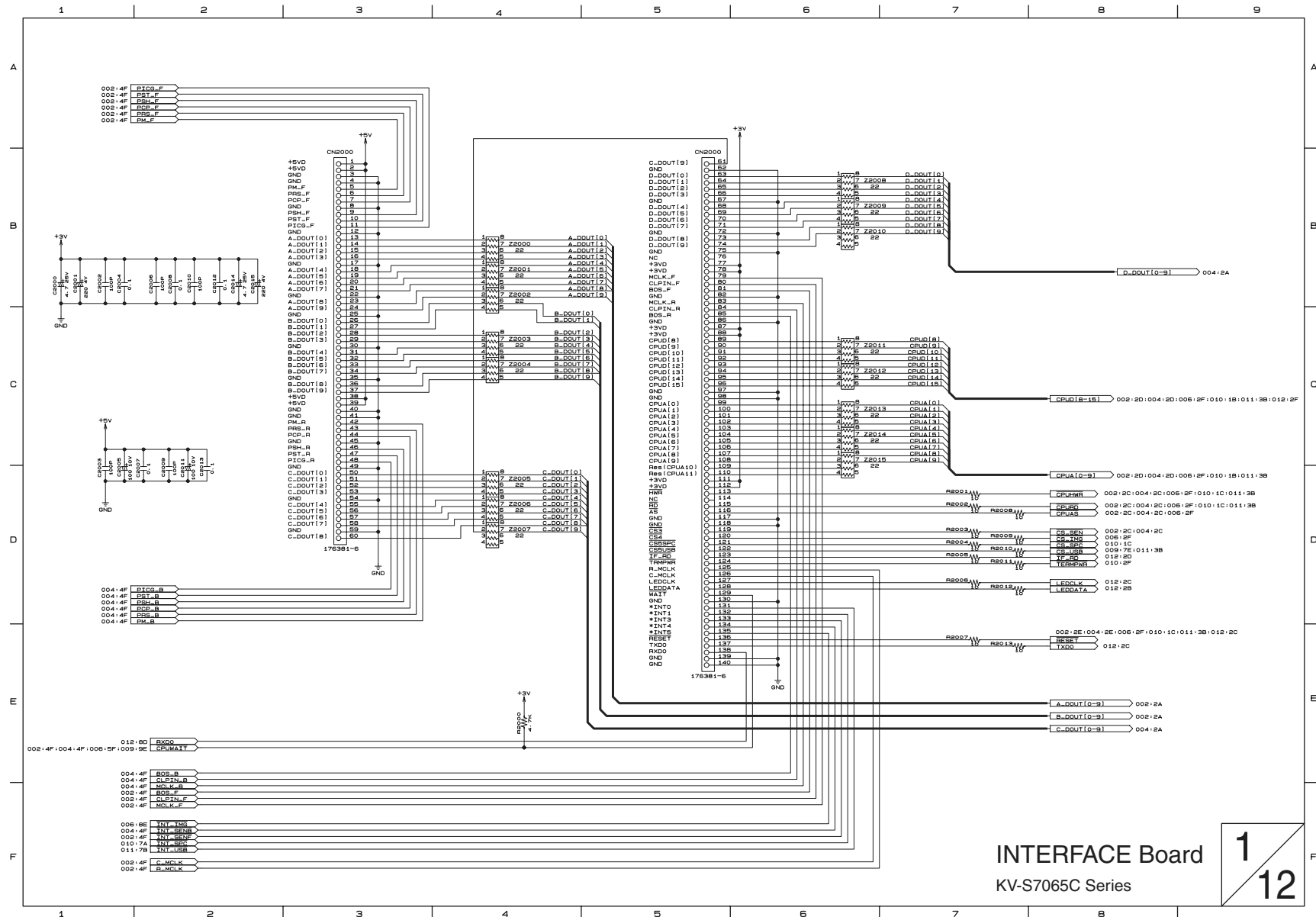


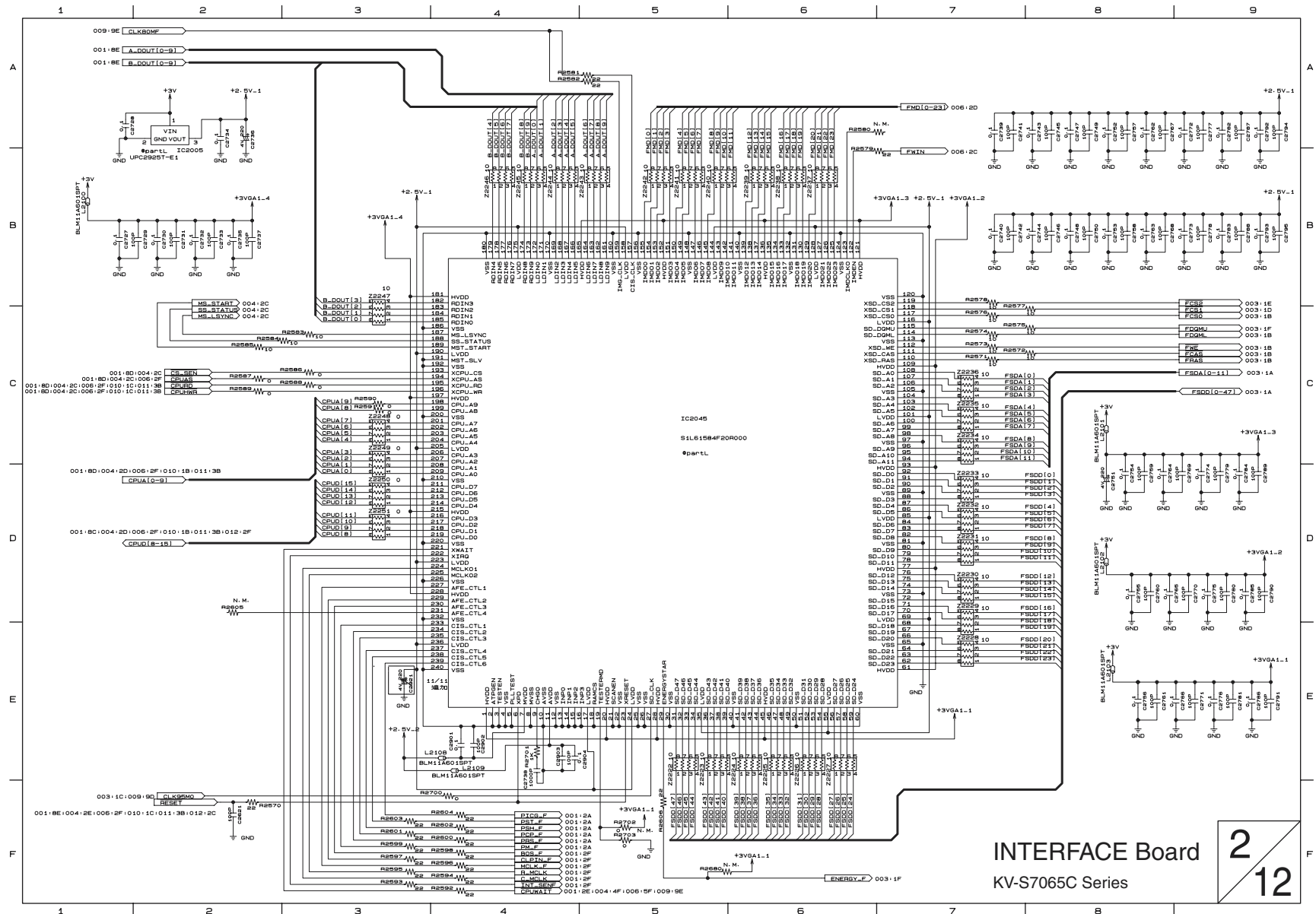






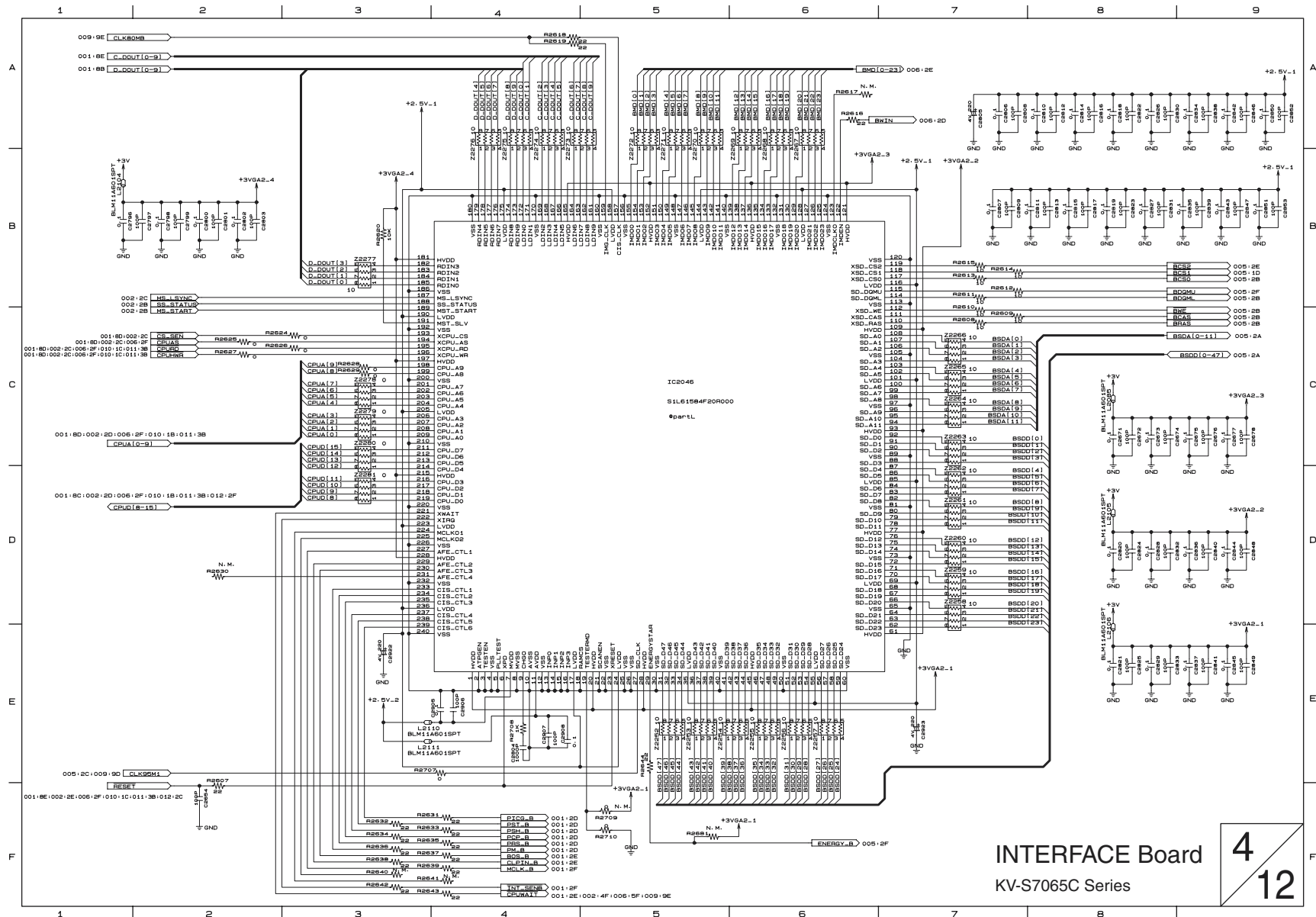


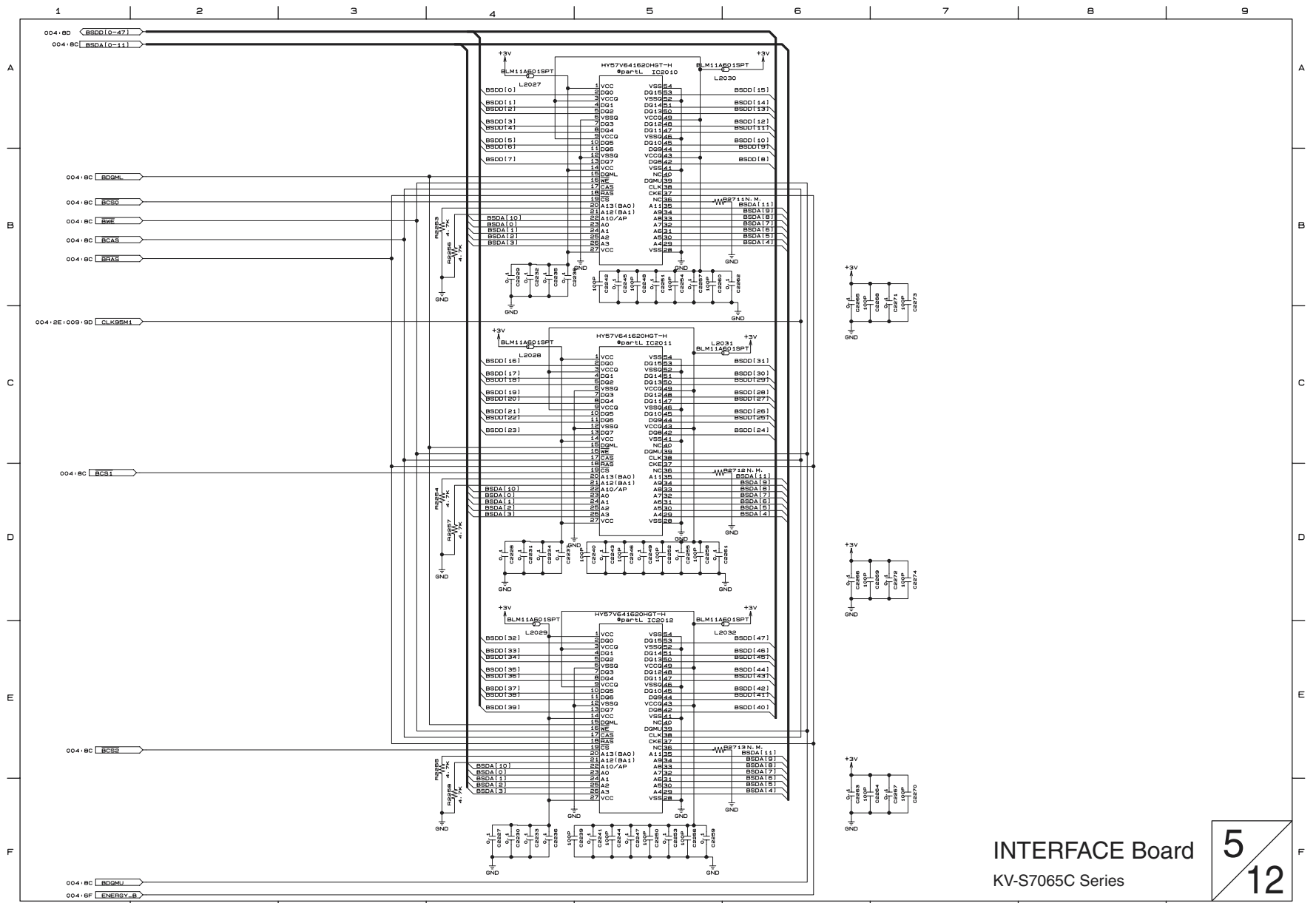






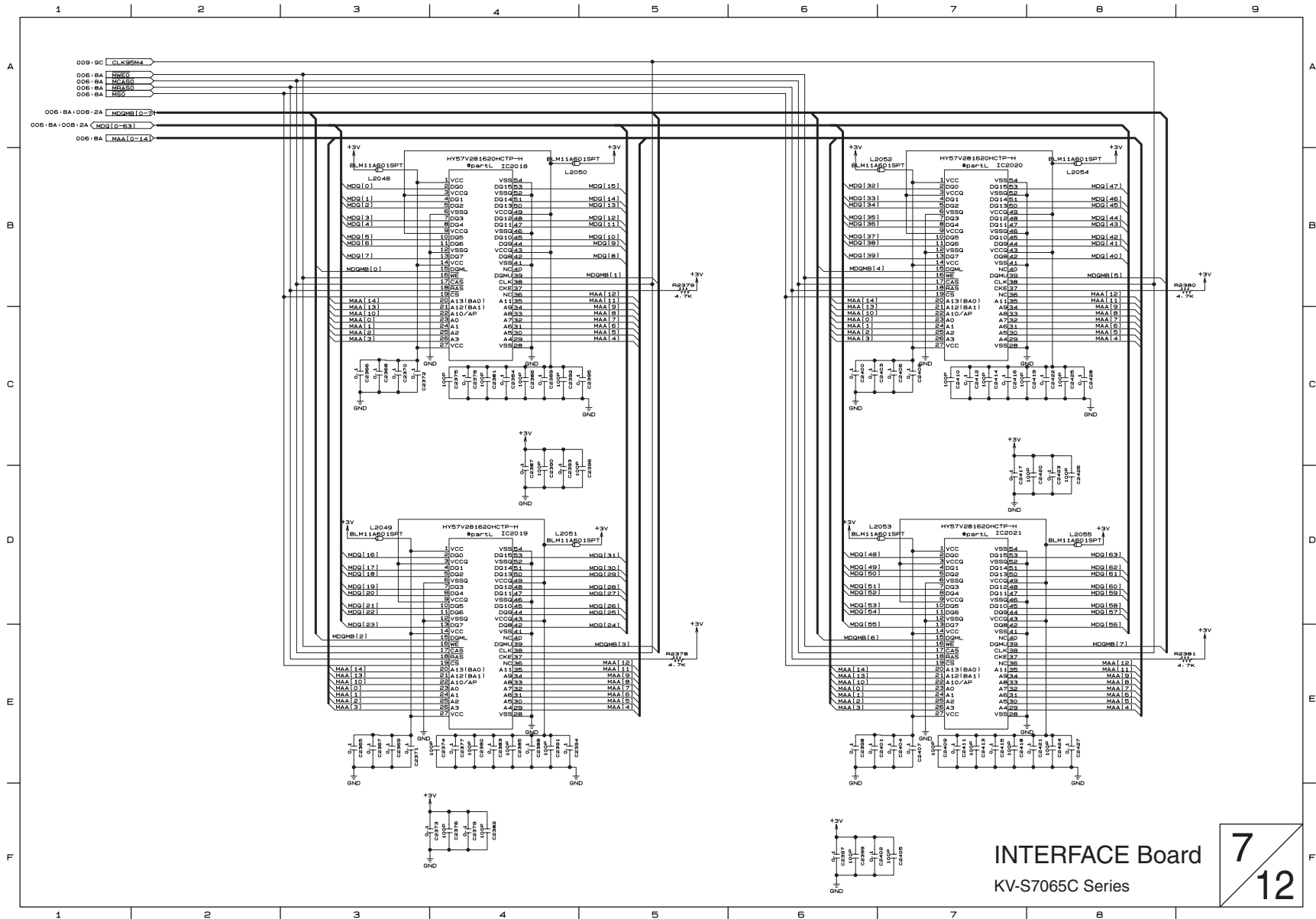
3	12
---	----

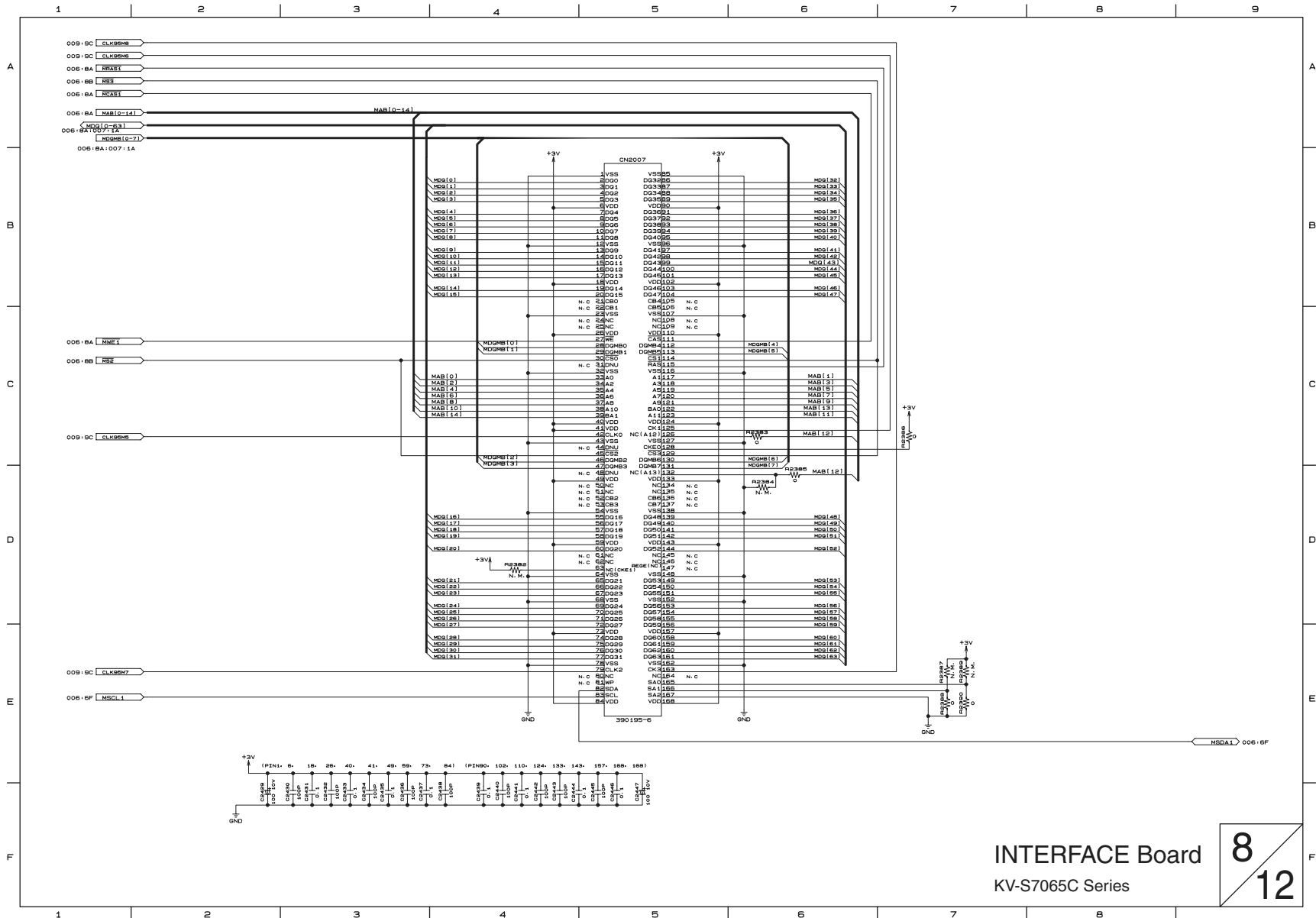




INTERFACE Board
KV-S7065C Series

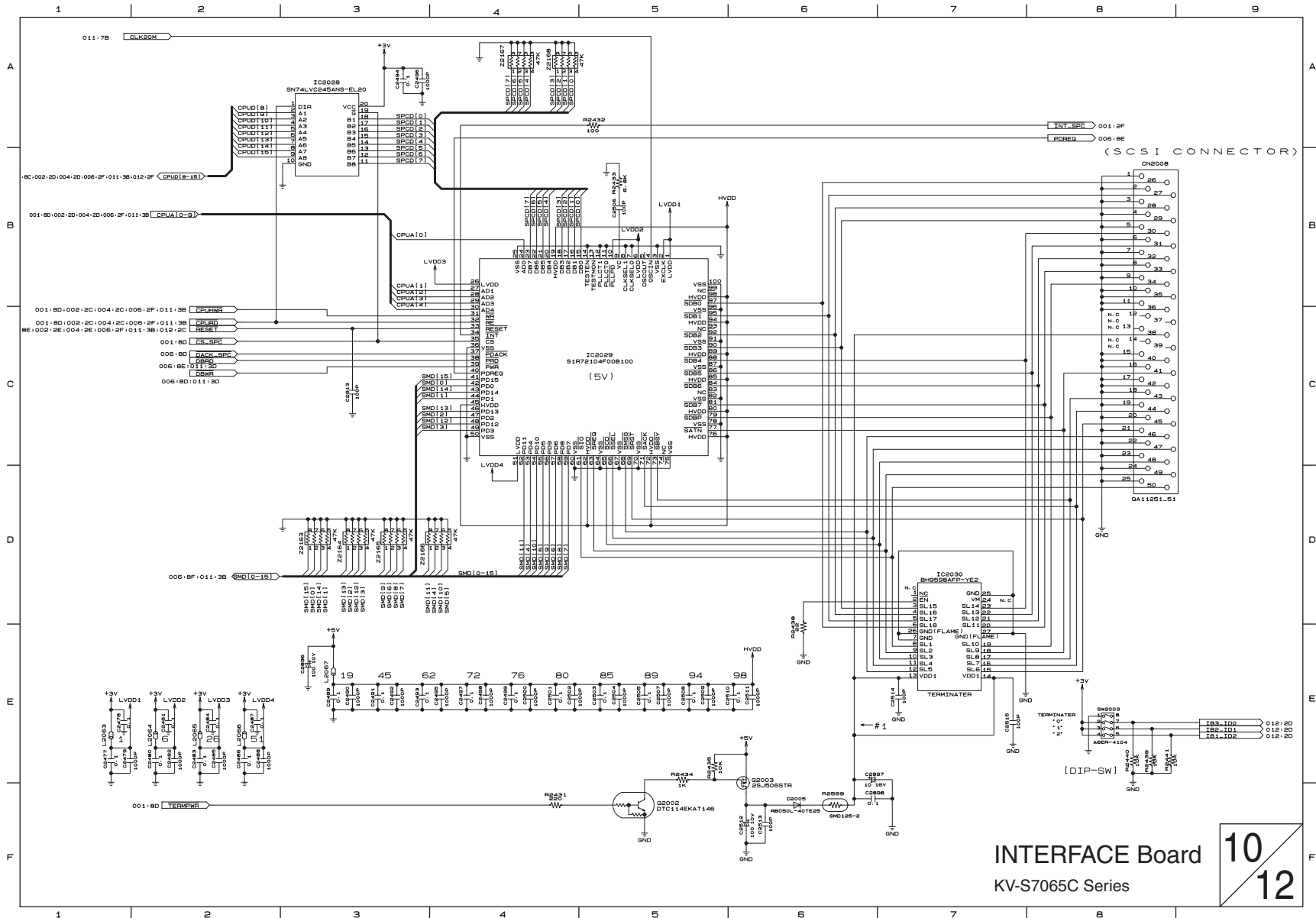
5
12

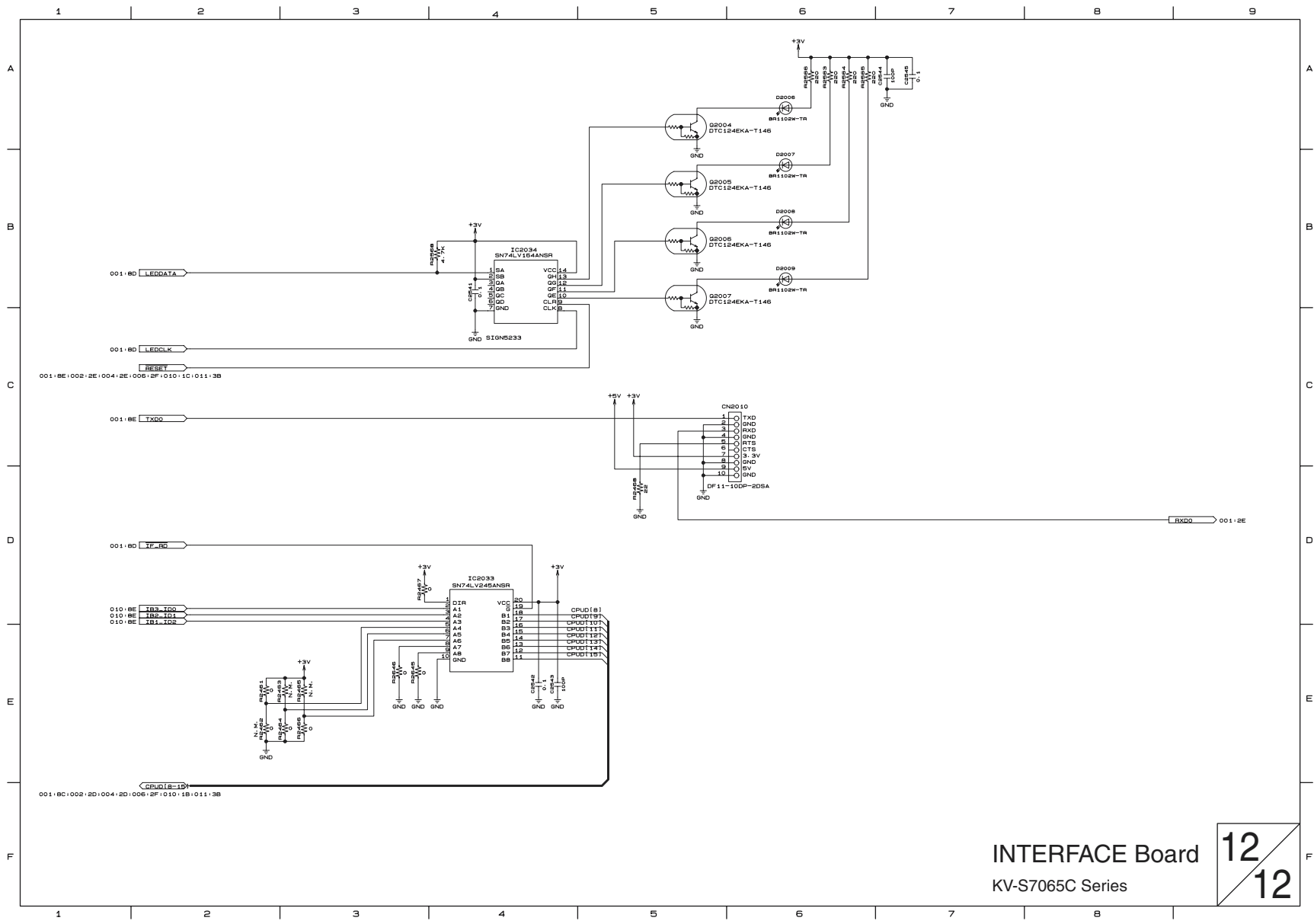




INTERFACE Board
KV-S7065C Series

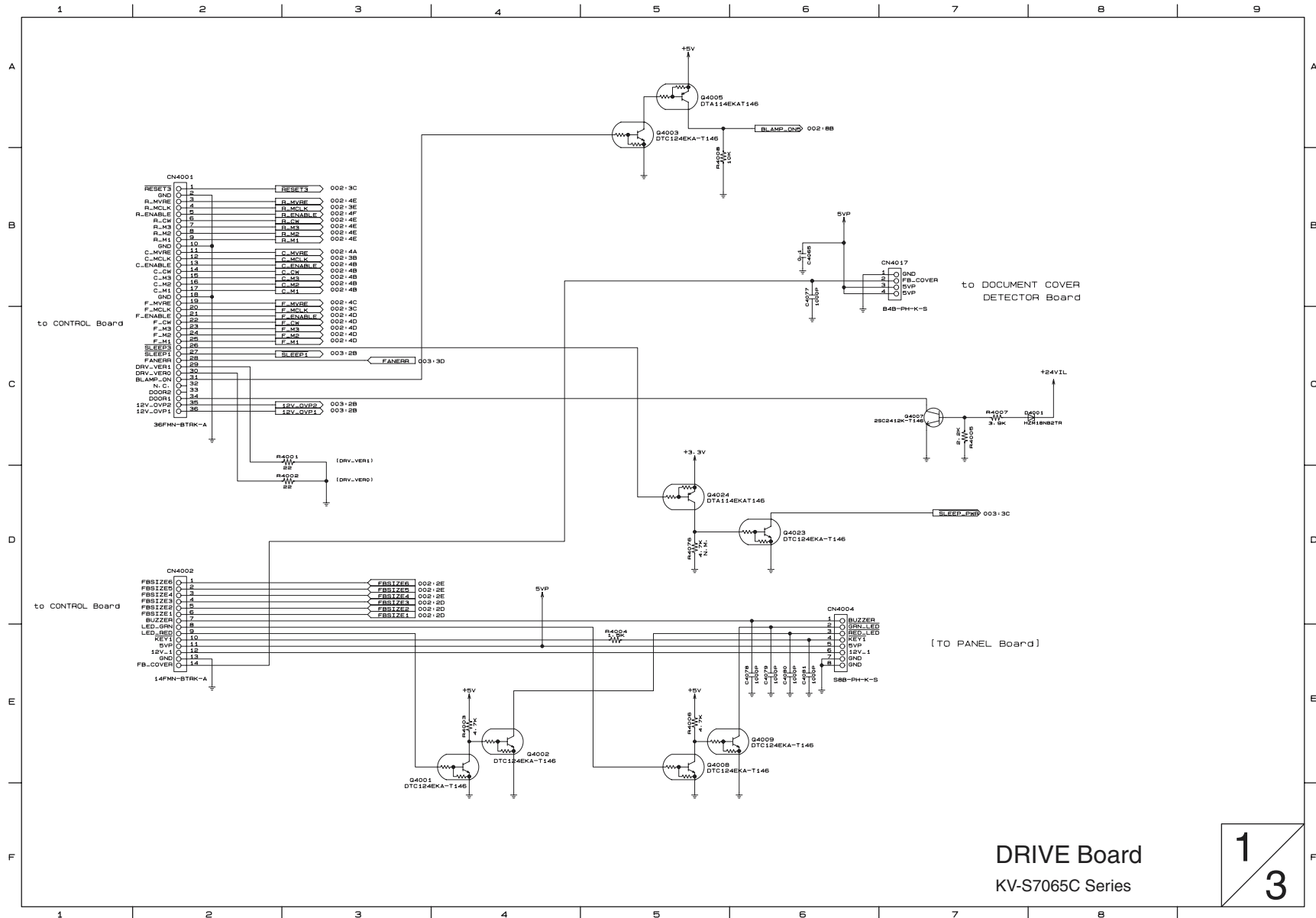
8
12

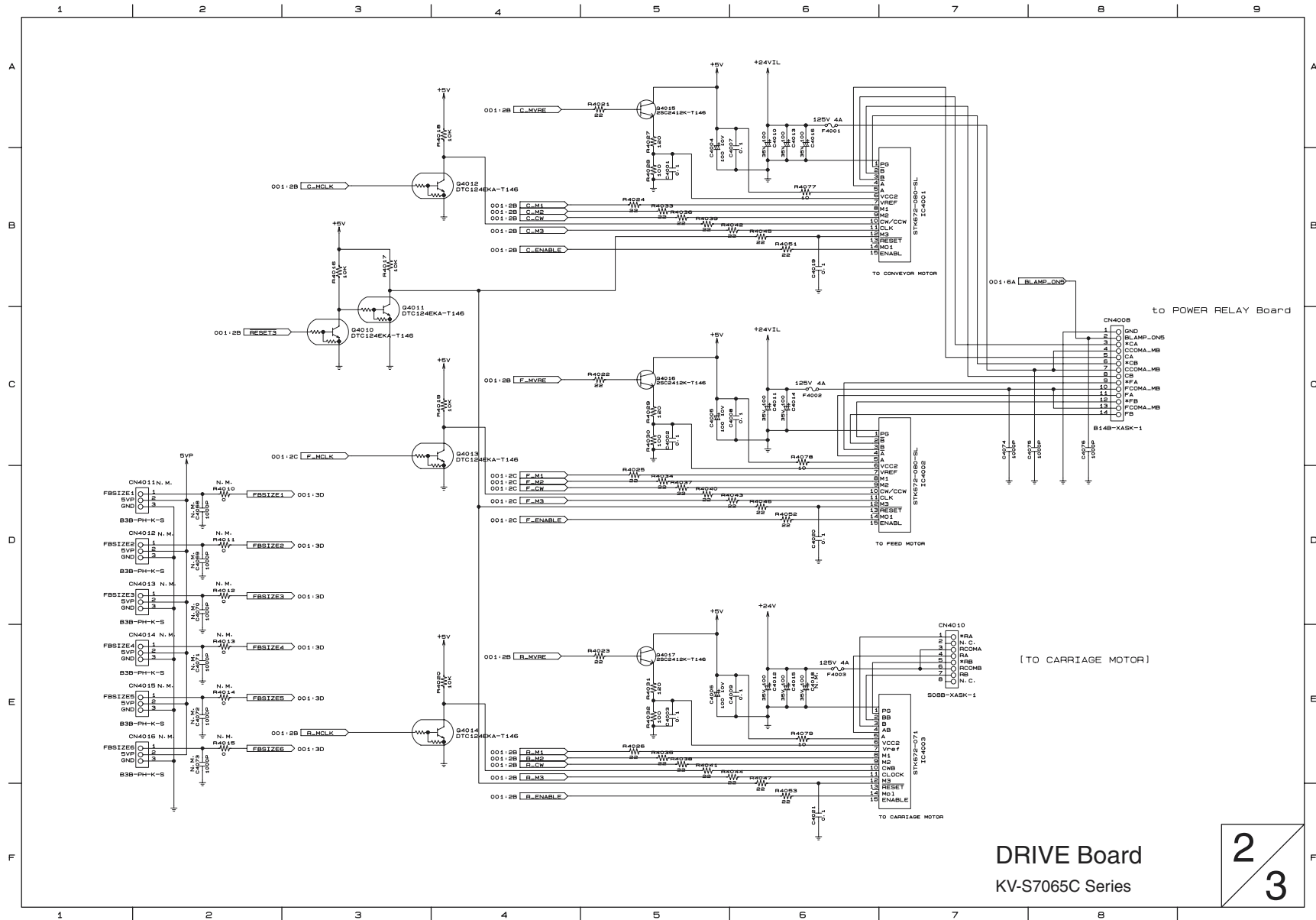




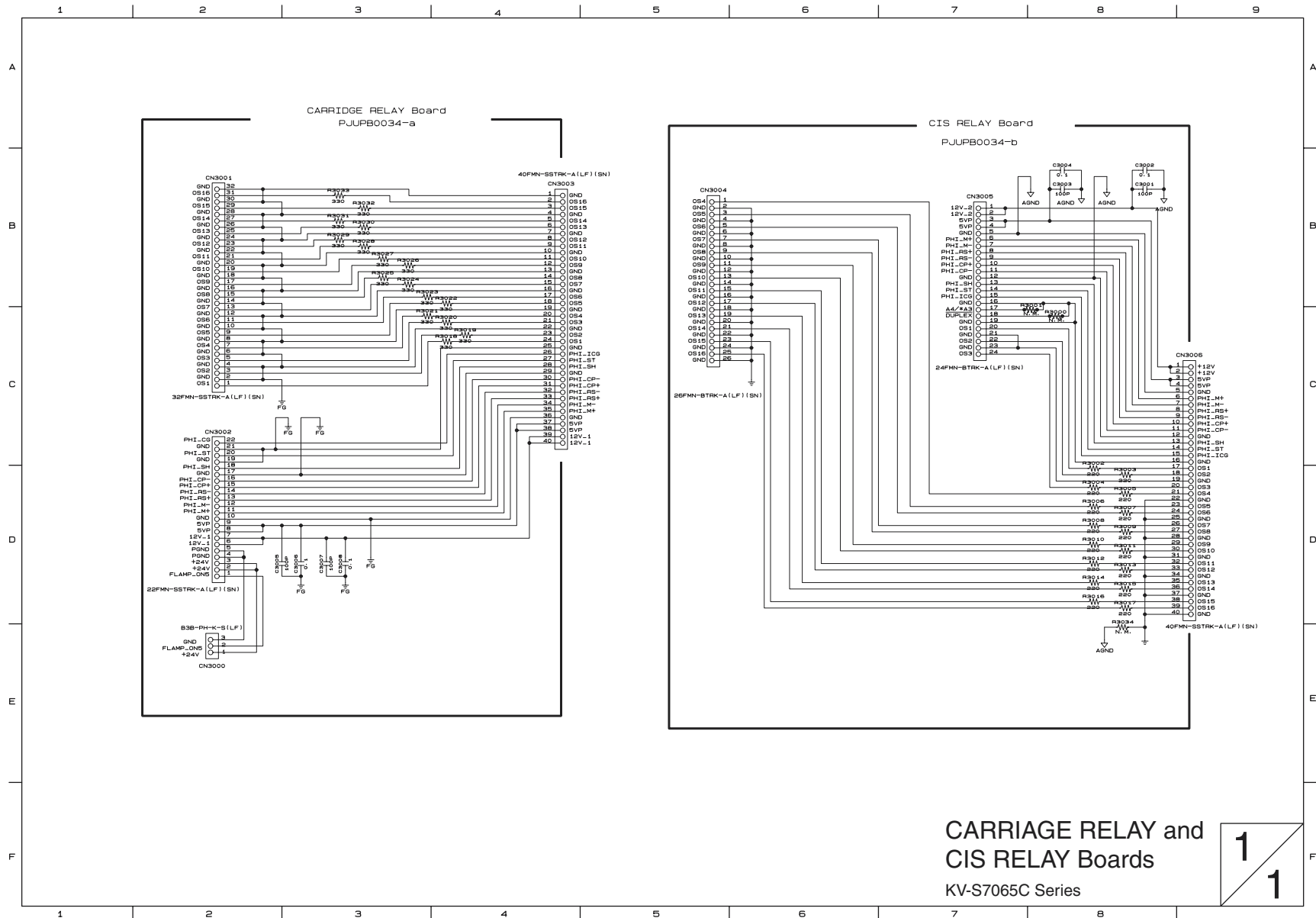
INTERFACE Board
KV-S7065C Series

12
12



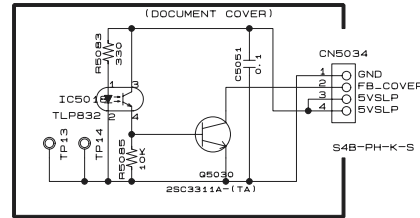






[PJUPB0030-d]

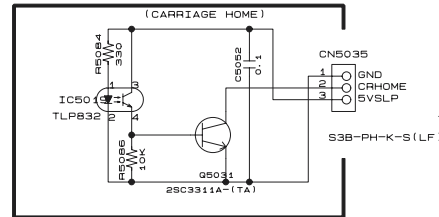
DOCUMENT COVER DETECTOR Board



to DRIVE Board

[PJUPB0030-e]

CARRIAGE HOME DETECTOR Board



to CONTROL Board

DOCUMENT COVER DETECTOR and
CARRIAGE HOME DETECTOR Boards

KV-S7065C Series

CN5006

1	○	5VSLP
2	○	STBY
3	○	GND

S3B-PH-K-S(LF)

to OUTER CONVEYOR RELAY Board

(HOPPER HOME)

IC500
TLP832

IC501
555

2SC3311A-(TA)

9500B

9V

10K

330

100

100K

0.1

1000P

SPK

BZ

CN5

S4B

100 Hz sine wave oscillator

IC5015
RPR-359FC

10k
100k

100k
0.1

2SA1309A (1TA)

9V

100k

100 Hz

CN5015

1 5VSLP
2 PFEXIT
3 GND

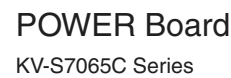
S3B-PH-K-S(LF)
to SENSOR RELAY Board

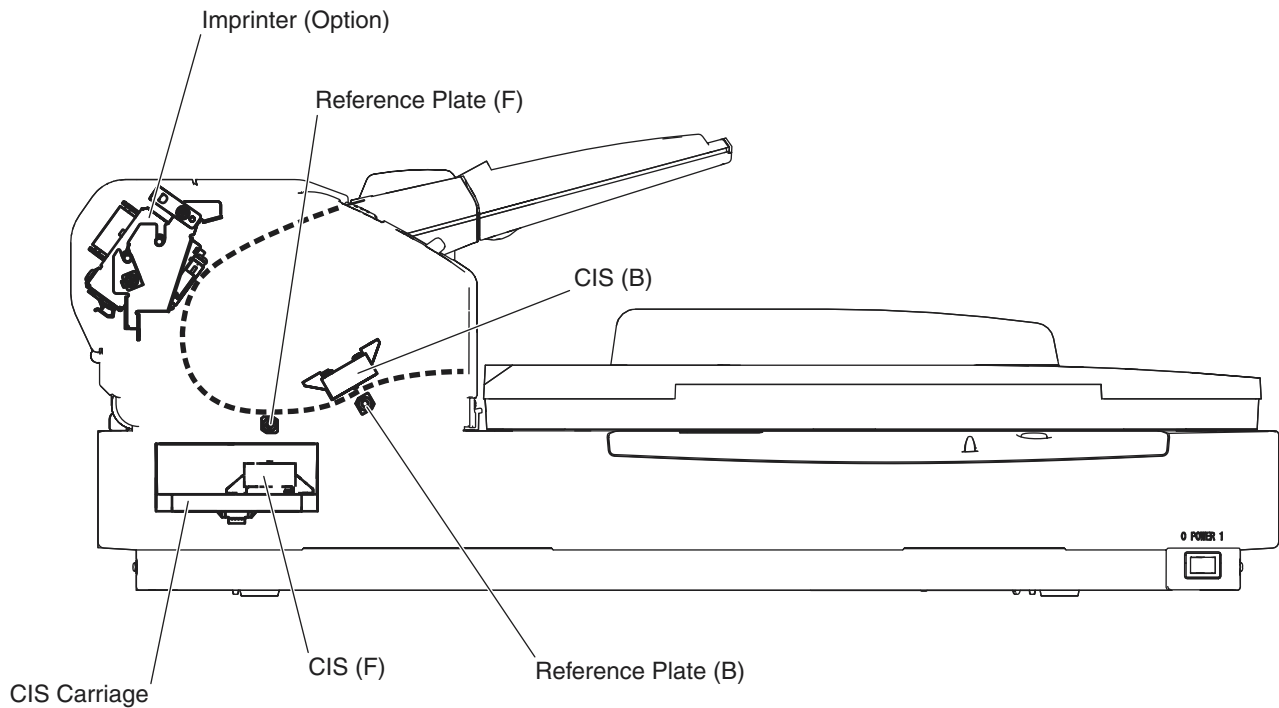
WAITING SENSOR, ENDING SENSOR, and HOPPER HOME DETECTOR Boards

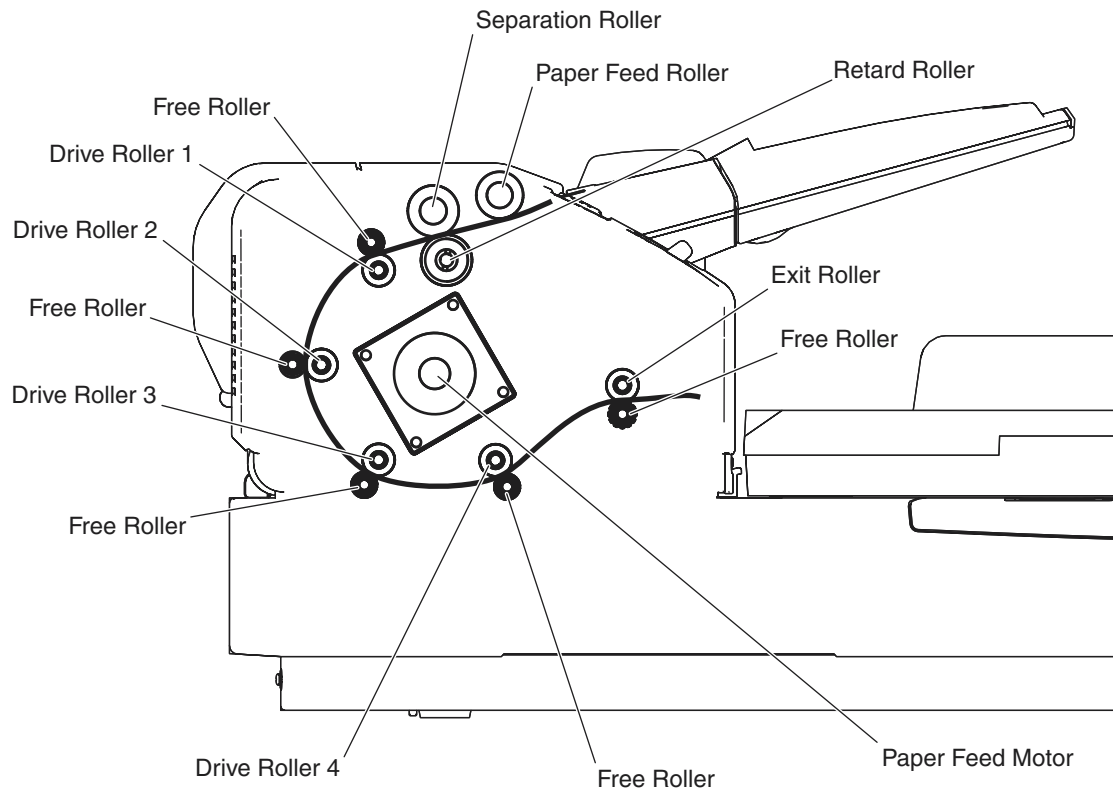
KV-S7065C Series

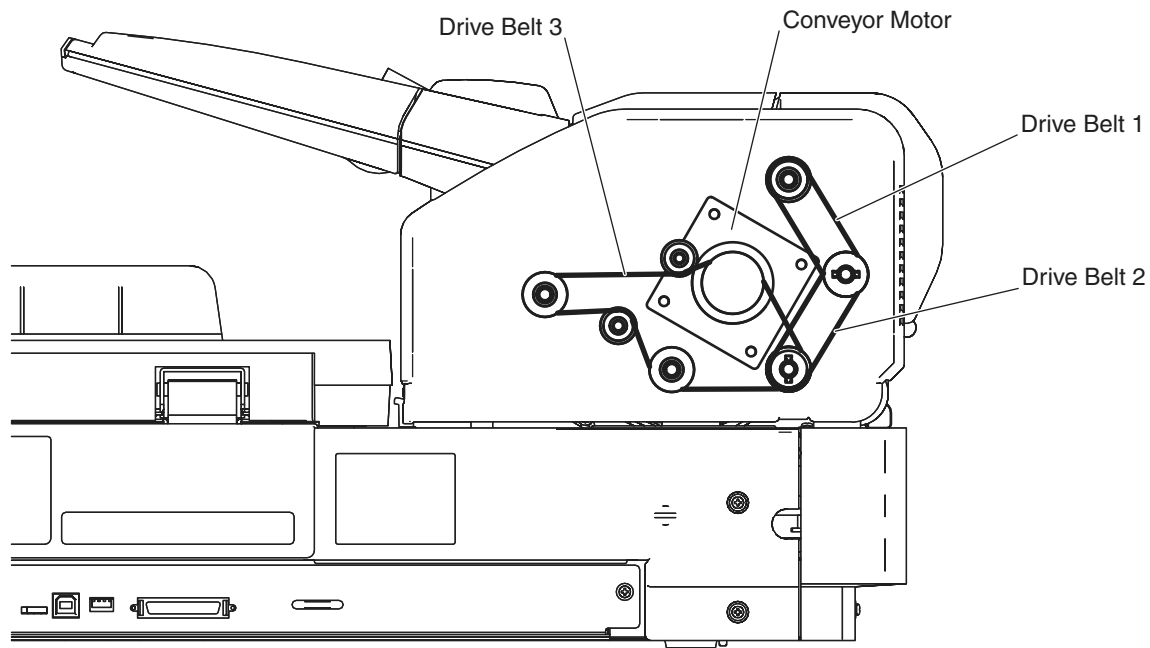
$$\frac{4}{6}$$

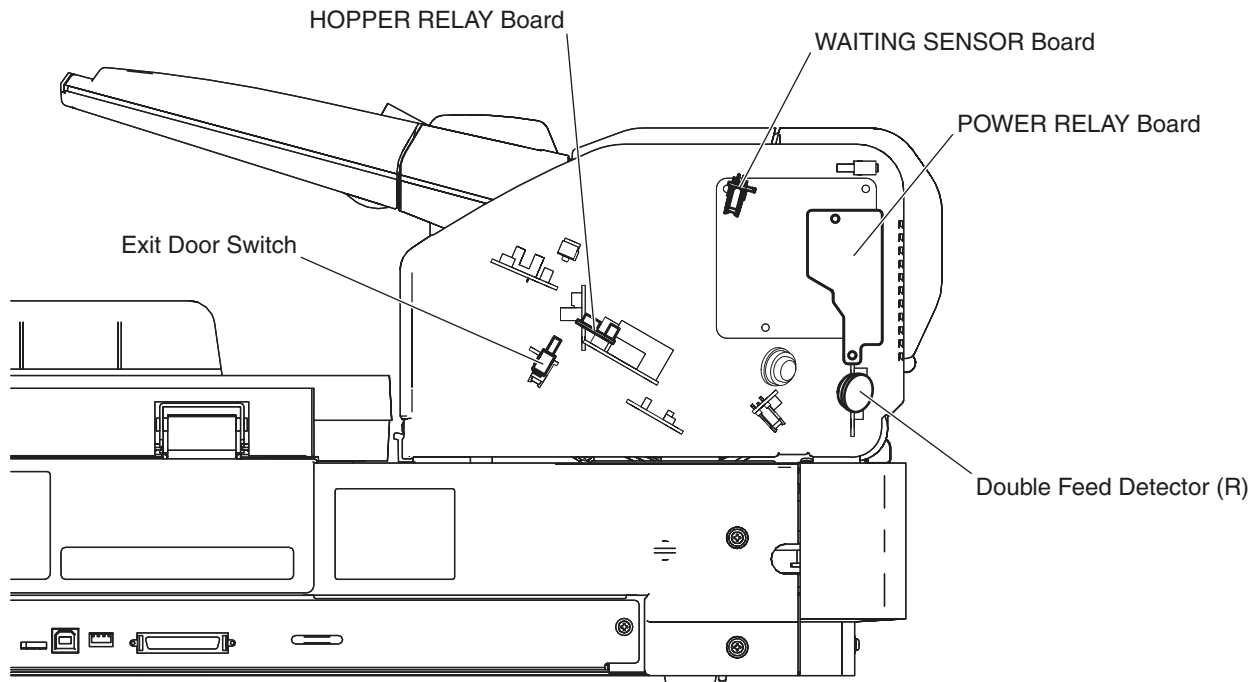


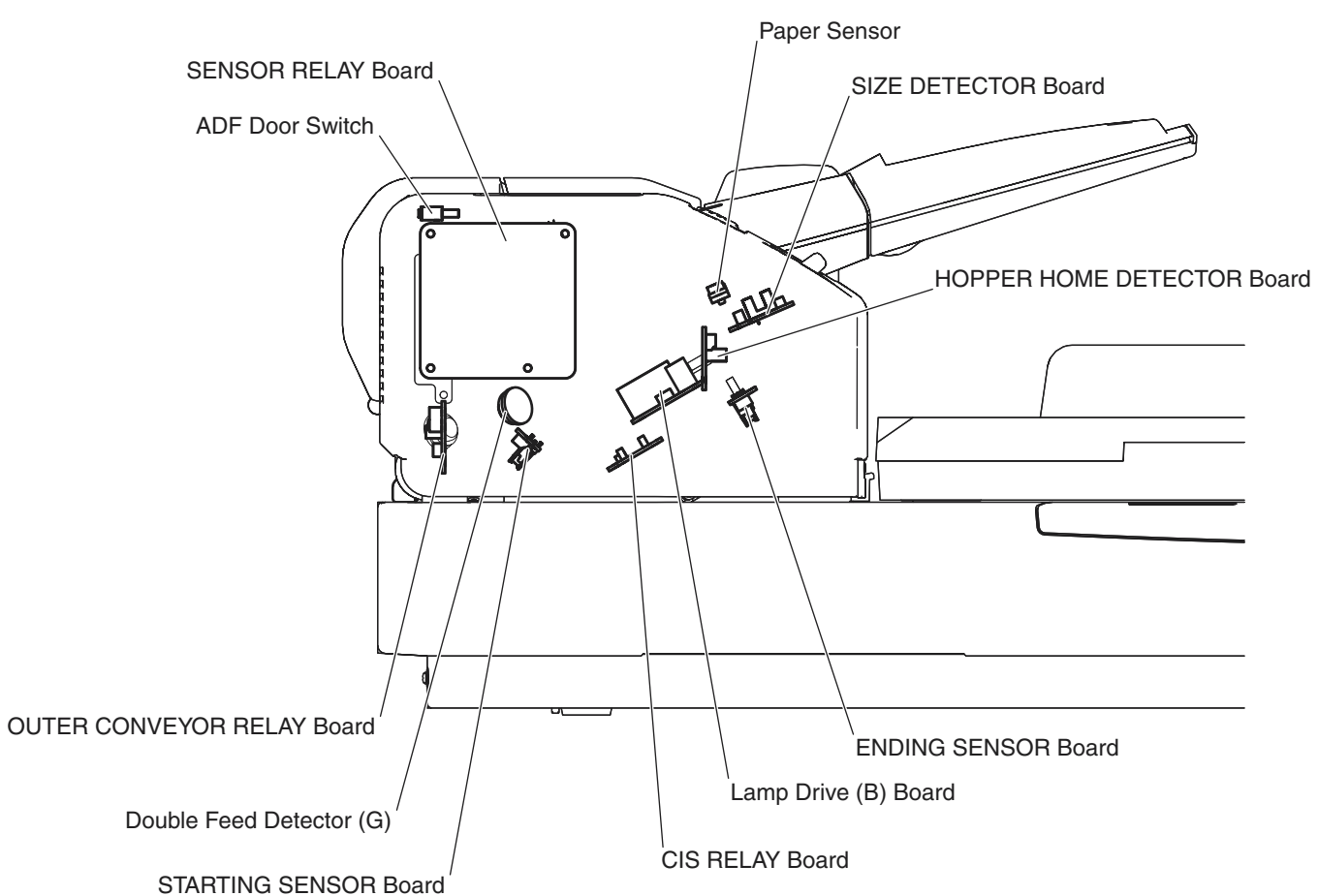

$$\frac{1}{1}$$

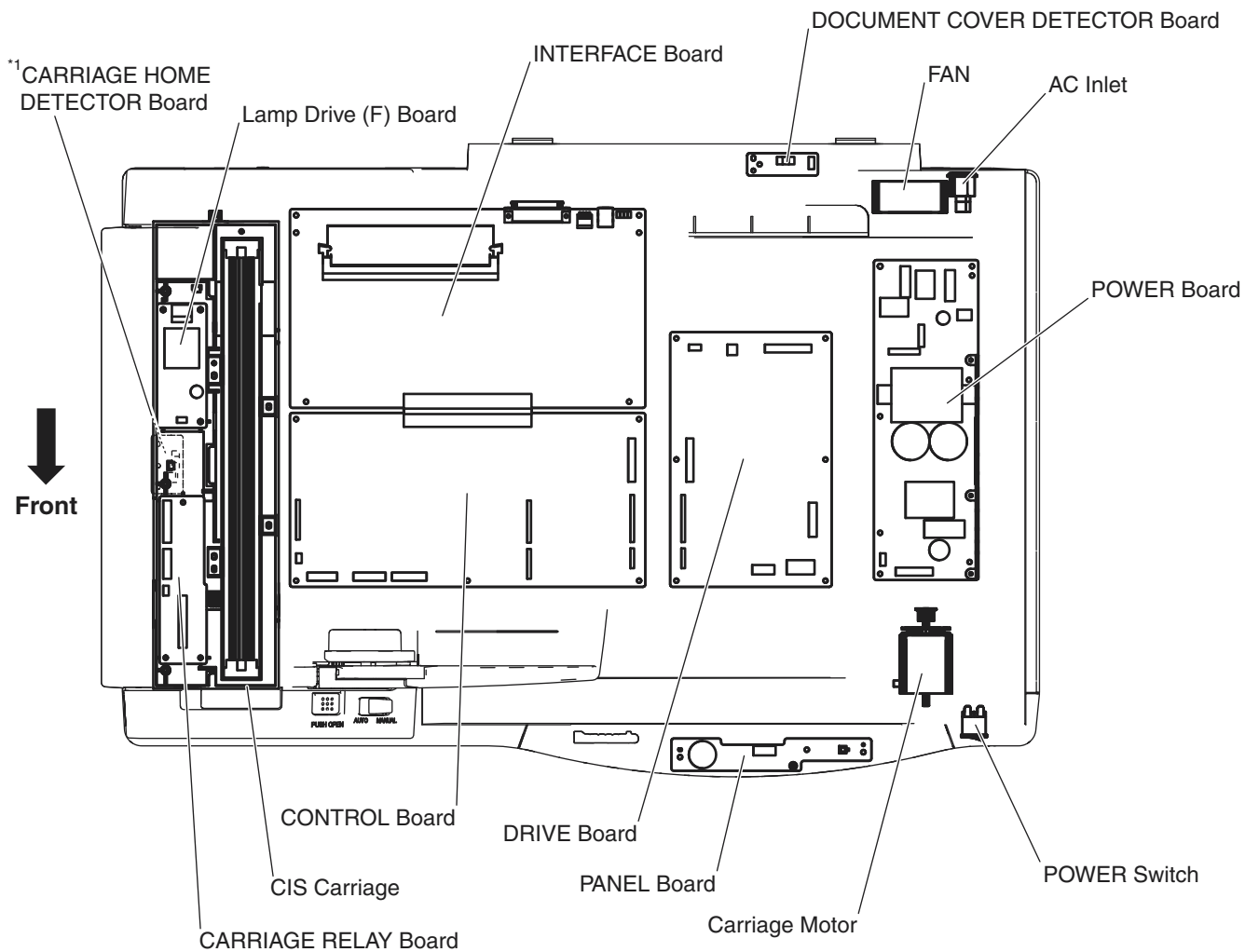


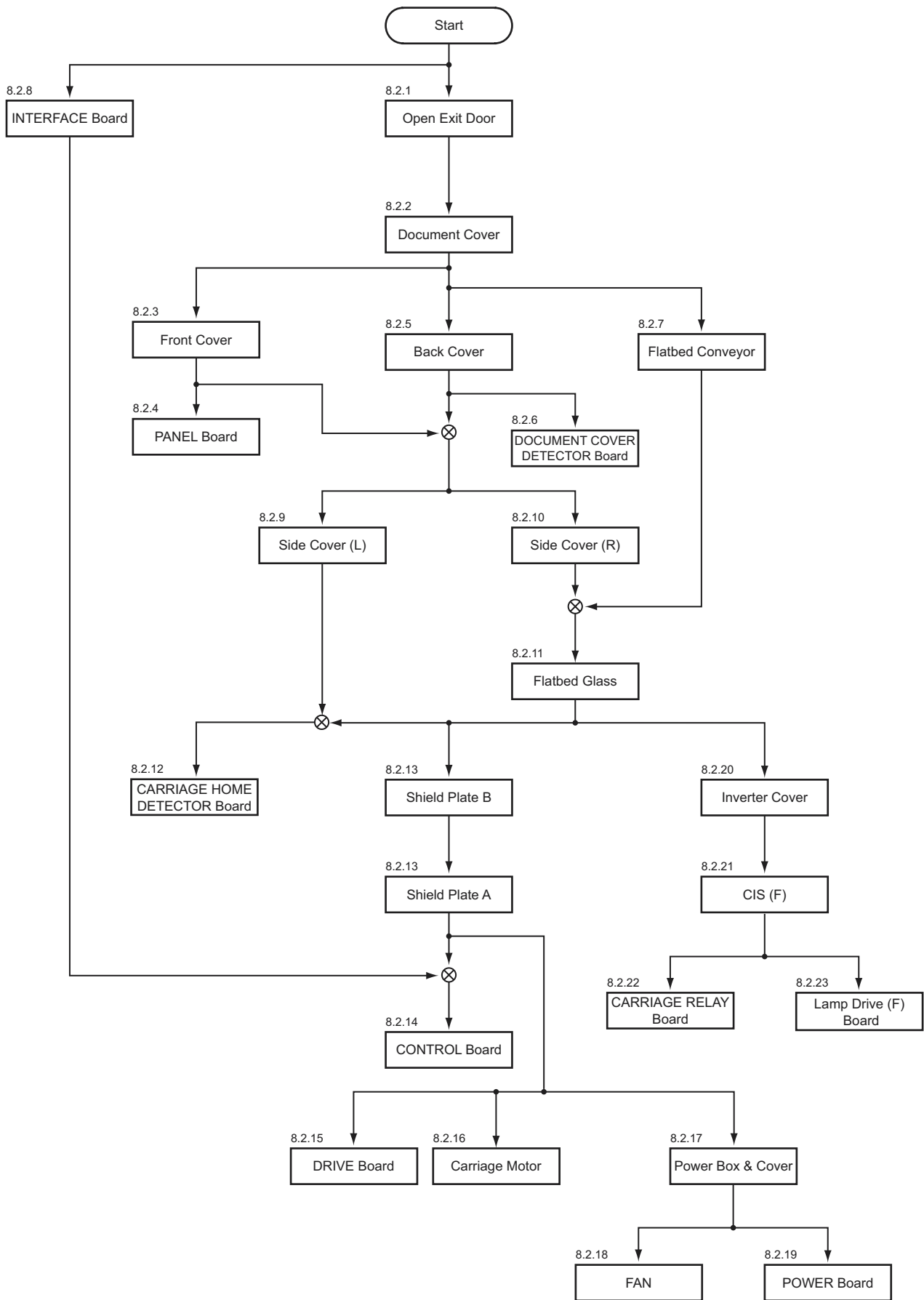


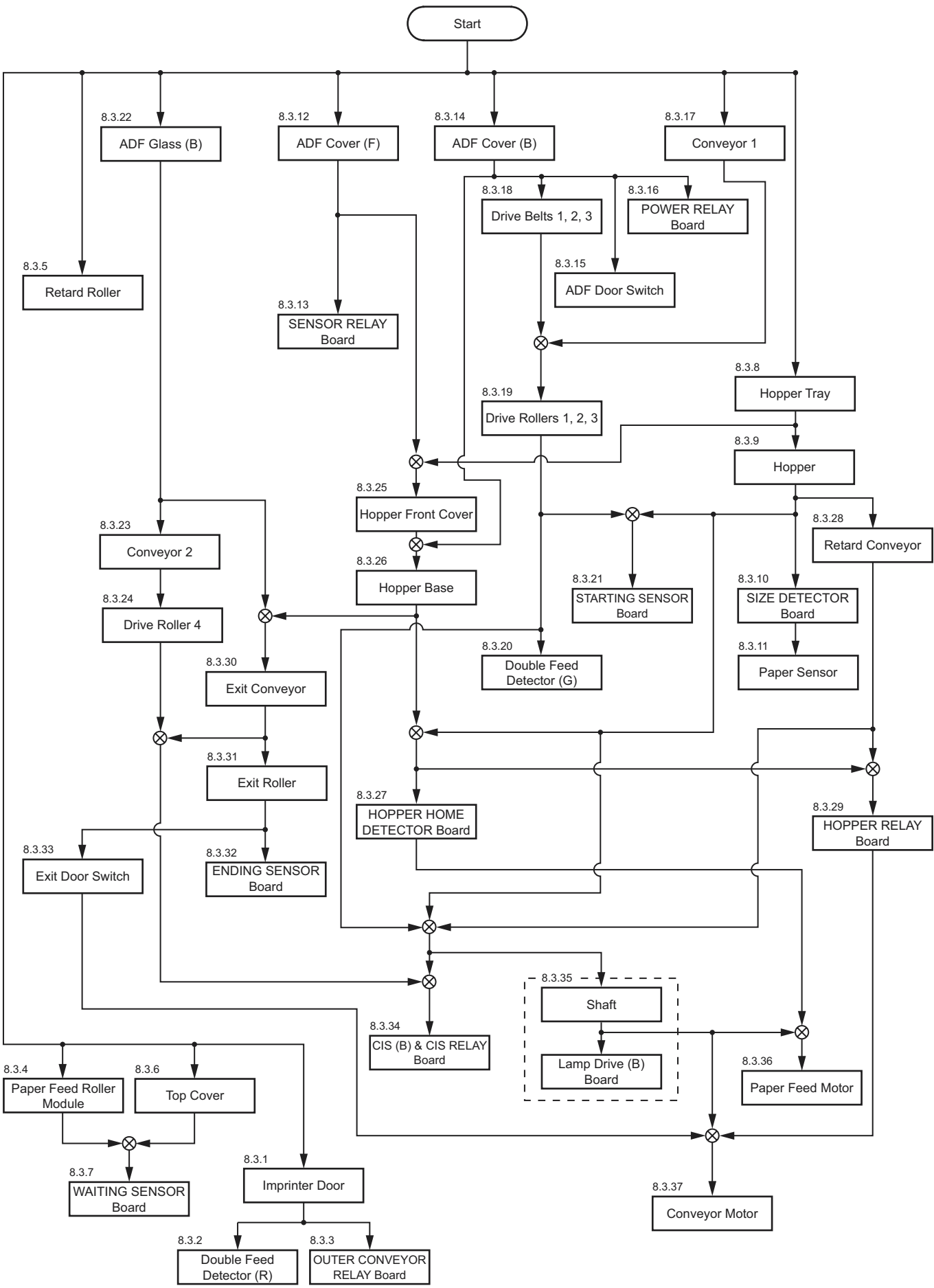


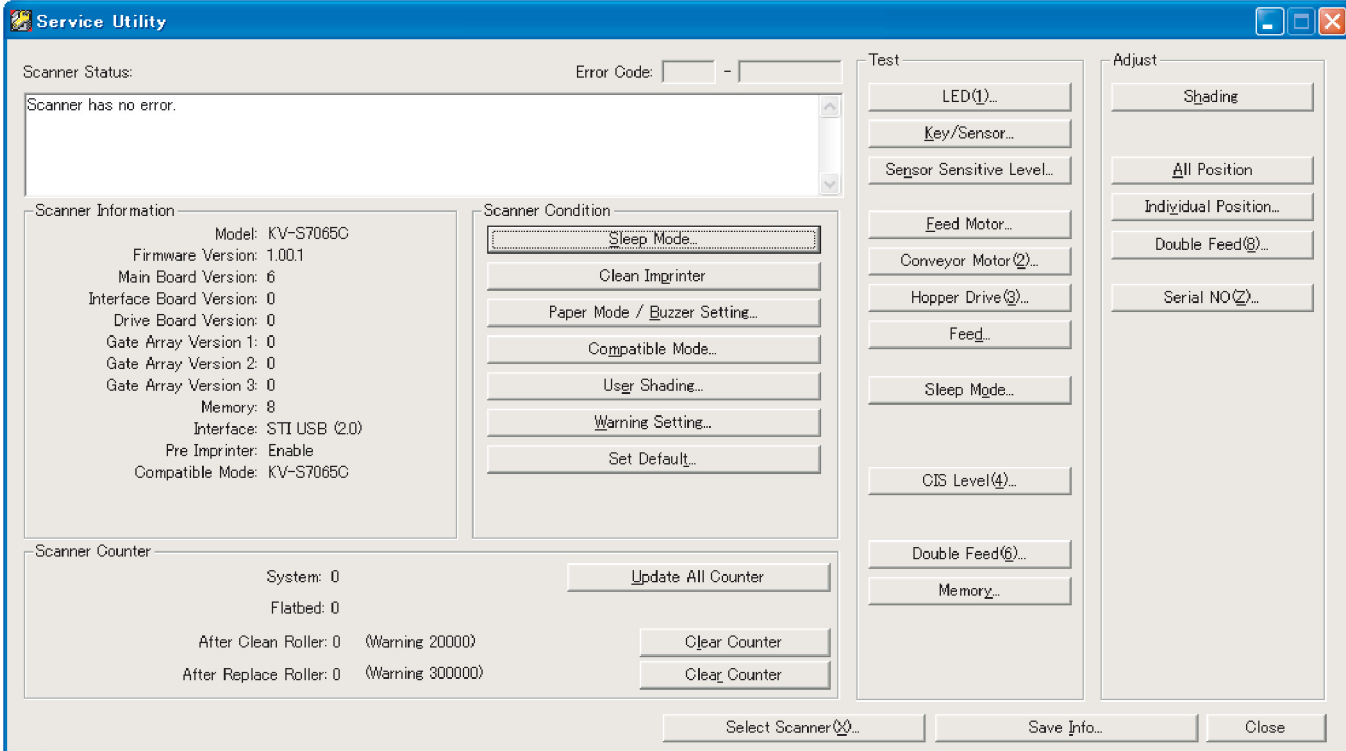












*Fig. 9.1 Main Menu

***Note:**

- This is a main menu sample (Fig. 9.1) of the Service Utility software (Version 3.00).
- This software is the latest version at the time when this service manual is issued, but it is subject to change without notice.

Key/Sensor



Key/Sensor Status

STOP/START Key: OFF

Paper Sensor: OFF

Waiting Sensor: OFF

Starting Sensor: OFF

Skew(R) Sensor: OFF

Skew(L) Sensor: OFF

Ending Sensor: OFF

Back Ending Sensor:

Door Switch: ON

Jam Sensor:

Document Cover Detector: OFF

Pointer Detector:

Retard Position Detector: OFF

Hopper Home Detector: OFF

Carriage Home Detector: OFF

Size Detector: A3 (00000)

Switch OFF

No paper

No paper

No paper

No paper

No paper

No paper

Door open

Cover close

Manual feed mode

Out of hopper home position

Out of Carriage home position

Scanning Size

Close

Gain

Front:

115

Back:

60

Peak

Front

Red Peak:

Blue Peak:

Green Peak:

Back

Red Peak:

Blue Peak:

Green Peak:

START(S)

STOP(T)

Close

Feed



Test Mode:

Feed

Feed Count: 0

Test Condition

Resolution:

150



dpi

Image Type:

Black & White



Rate with Binary Image



Feeding Speed:

Slow



Paper Size:

Letter



☒ Length Control

☒ Detect Double Feed

☐ Imprinter

CIS LED Setting

LED Color:

White



Side



Simplex

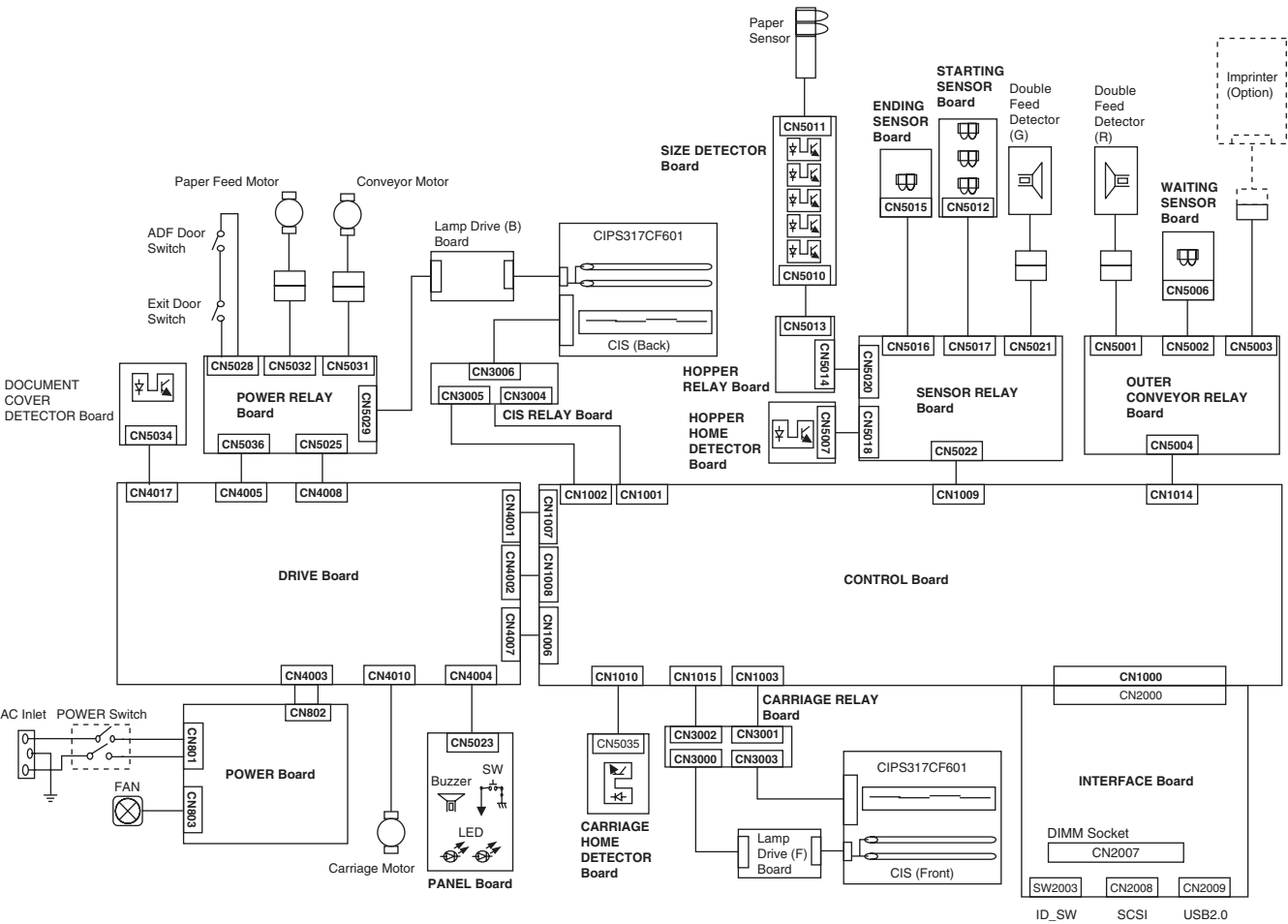


Duplex

START(S)

STOP(T)

Close



CN1000 [CONTROL Board] - CN2000 [INTERFACE Board]

Pin No.		Signal Name	Description
CN1000	CN2000		
1	1	+5VD	+5 V
2	2	+5VD	+5 V
3	3	GND	Ground
4	4	GND	Ground
5	5	PM_F	Front CIS clock (5 MHz)
6	6	PRS_F	Front CIS reset pulse
7	7	PCP_F	Front CIS clamp pulse
8	8	GND	Ground
9	9	PSH_F	Front CIS shift pulse
10	10	PST_F	Front CIS storage pulse
11	11	PICG_F	Front CIS ICG pulse
12	12	GND	Ground
13	13	A_DOUT (0)	Front CIS CH1-8 digital data [0]
14	14	A_DOUT (1)	Front CIS CH1-8 digital data [1]
15	15	A_DOUT (2)	Front CIS CH1-8 digital data [2]
16	16	A_DOUT (3)	Front CIS CH1-8 digital data [3]
17	17	GND	Ground
18	18	A_DOUT (4)	Front CIS CH1-8 digital data [4]
19	19	A_DOUT (5)	Front CIS CH1-8 digital data [5]
20	20	A_DOUT (6)	Front CIS CH1-8 digital data [6]
21	21	A_DOUT (7)	Front CIS CH1-8 digital data [7]
22	22	GND	Ground
23	23	A_DOUT (8)	Front CIS CH1-8 digital data [8]
24	24	A_DOUT (9)	Front CIS CH1-8 digital data [9]
25	25	GND	Ground
26	26	B_DOUT (0)	Front CIS CH9-16 digital data [0]
27	27	B_DOUT (1)	Front CIS CH9-16 digital data [1]
28	28	B_DOUT (2)	Front CIS CH9-16 digital data [2]
29	29	B_DOUT (3)	Front CIS CH9-16 digital data [3]
30	30	GND	Ground
31	31	B_DOUT (4)	Front CIS CH9-16 digital data [4]
32	32	B_DOUT (5)	Front CIS CH9-16 digital data [5]
33	33	B_DOUT (6)	Front CIS CH9-16 digital data [6]
34	34	B_DOUT (7)	Front CIS CH9-16 digital data [7]
35	35	GND	Ground
36	36	B_DOUT (8)	Front CIS CH9-16 digital data [8]
37	37	B_DOUT (9)	Front CIS CH9-16 digital data [9]
38	38	+5VD	+5 V
39	39	+5VD	+5 V
40	40	GND	Ground
41	41	GND	Ground
42	42	PM_R	Back CIS clock (5 MHz)
43	43	PRS_R	Back CIS reset pulse
44	44	PCP_R	Back CIS clamp pulse
45	45	GND	Ground
46	46	PSH_R	Back CIS shift pulse
47	47	PST_R	Back CIS storage pulse
48	48	PICG_R	Back CIS ICG pulse
49	49	GND	Ground
50	50	C_DOUT (0)	Back CIS CH1-8 digital data [0]
51	51	C_DOUT (1)	Back CIS CH1-8 digital data [1]
52	52	C_DOUT (2)	Back CIS CH1-8 digital data [2]
53	53	C_DOUT (3)	Back CIS CH1-8 digital data [3]
54	54	GND	Ground
55	55	C_DOUT (4)	Back CIS CH1-8 digital data [4]
56	56	C_DOUT (5)	Back CIS CH1-8 digital data [5]
57	57	C_DOUT (6)	Back CIS CH1-8 digital data [6]
58	58	C_DOUT (7)	Back CIS CH1-8 digital data [7]

Pin No.		Signal Name	Description
CN1000	CN2000		
59	59	GND	Ground
60	60	C_DOUT (8)	Back CIS CH1-8 digital data [8]
61	61	C_DOUT (9)	Back CIS CH1-8 digital data [9]
62	62	GND	Ground
63	63	D_DOUT (0)	Back CIS CH9-16 digital data [0]
64	64	D_DOUT (1)	Back CIS CH9-16 digital data [1]
65	65	D_DOUT (2)	Back CIS CH9-16 digital data [2]
66	66	D_DOUT (3)	Back CIS CH9-16 digital data [3]
67	67	GND	Ground
68	68	D_DOUT (4)	Back CIS CH9-16 digital data [4]
69	69	D_DOUT (5)	Back CIS CH9-16 digital data [5]
70	70	D_DOUT (6)	Back CIS CH9-16 digital data [6]
71	71	D_DOUT (7)	Back CIS CH9-16 digital data [7]
72	72	GND	Ground
73	73	D_DOUT (8)	Back CIS CH9-16 digital data [8]
74	74	D_DOUT (9)	Back CIS CH9-16 digital data [9]
75	75	GND	Ground
76	76	N.C.	Not used
77	77	+3VD	+3.3 V
78	78	+3VD	+3.3 V
79	79	MCLK_F	Front ADC master clock (20 MHz)
80	80	CLPIN_F	Front ADC sample/hold clamp pulse
81	81	BOS_F	Front ADC Begining of scan pulse
82	82	GND	Ground
83	83	MCLK_R	Back ADC master clock (20 MHz)
84	84	CLPIN_R	Back ADC sample/hold clamp pulse
85	85	BOS_R	Back ADC Begining of scan pulse
86	86	GND	Ground
87	87	+3VD	+3.3 V
88	88	+3VD	+3.3 V
89	89	CPU D (8)	CPU data [8]
90	90	CPU D (9)	CPU data [9]
91	91	CPU D (10)	CPU data [10]
92	92	CPU D (11)	CPU data [11]
93	93	CPU D (12)	CPU data [12]
94	94	CPU D (13)	CPU data [13]
95	95	CPU D (14)	CPU data [14]
96	96	CPU D (15)	CPU data [15]
97	97	GND	Ground
98	98	GND	Ground
99	99	CPU A (0)	CPU address [0]
100	100	CPU A (1)	CPU address [1]
101	101	CPU A (2)	CPU address [2]
102	102	CPU A (3)	CPU address [3]
103	103	CPU A (4)	CPU address [4]
104	104	CPU A (5)	CPU address [5]
105	105	CPU A (6)	CPU address [6]
106	106	CPU A (7)	CPU address [7]
107	107	CPU A (8)	CPU address [8]
108	108	CPU A (9)	CPU address [9]
109	109	Res (CPU A10)	Reserve (CPU address [10])
110	110	Res (CPU A11)	Reserve (CPU address [11])
111	111	+3VD	+3.3 V
112	112	+3VD	+3.3 V
113	113	*HWR	CPU high bite write strobe
114	114	*LWR	CPU low bite write strobe
115	115	*RD	CPU read strobe
116	116	*AS	CPU address strobe

Pin No.		Signal Name	Description
CN1000	CN2000		
117	117	GND	Ground
118	118	GND	Ground
119	119	*CS3	CPU area 3 chip select
120	120	*CS4	CPU area 4 chip select
121	121	*CS5SPC	SCSI chip select
122	122	*CSUSB	USB chip select
123	123	*IF_RD	INTERFACE Board version & SCSI-ID read
124	124	*TRMPWR	SCSI terminator power switch
125	125	R_MCLK	Carriage motor clock
126	126	C_MCLK	Conveyor motor clock
127	127	LED CLK	LED data control clock
128	128	LED DATA	LED data
129	129	*WAIT	CPU wait signal
130	130	GND	Ground
131	131	*INT0	CPU interrupt 0 (USB)
132	132	*INT1	CPU interrupt 1 (USB)
133	133	*INT3	CPU interrupt 3 (Front GA-SENSOR)
134	134	*INT4	CPU interrupt 4 (Back GA-SENSOR)
135	135	*INT5	CPU interrupt 5 (GA-IMAGE)
136	136	*RESET	System reset
137	137	TXD0	Serial interface TXD 0
138	138	RXD0	Serial interface RXD 0
139	139	GND	Ground
140	140	GND	Ground

CN1001 [CONTROL Board] - CN3004 [CIS RELAY Board]

Pin No.		Signal Name	Description
CN1001	CN3004		
1	26	GND	Ground
2	25	OS16	Back CIS CH16 output
3	24	GND	Ground
4	23	OS15	Back CIS CH15 output
5	22	GND	Ground
6	21	OS14	Back CIS CH14 output
7	20	GND	Ground
8	19	OS13	Back CIS CH13 output
9	18	GND	Ground
10	17	OS12	Back CIS CH12 output
11	16	GND	Ground
12	15	OS11	Back CIS CH11 output
13	14	GND	Ground
14	13	OS10	Back CIS CH10 output
15	12	GND	Ground
16	11	OS9	Back CIS CH9 output
17	10	GND	Ground
18	9	OS8	Back CIS CH8 output
19	8	GND	Ground
20	7	OS7	Back CIS CH7 output
21	6	GND	Ground
22	5	OS6	Back CIS CH6 output
23	4	GND	Ground
24	3	OS5	Back CIS CH5 output
25	2	GND	Ground
26	1	OS4	Back CIS CH4 output

CN1002 [CONTROL Board] - CN3005 [CIS RELAY Board]

Pin No.		Signal Name	Description
CN1002	CN3005		
1	24	OS3	Back CIS CH3 output
2	23	GND	Ground
3	22	OS2	Back CIS CH2 output
4	21	GND	Ground
5	20	OS1	Back CIS CH1 output
6	19	GND	Ground
7	18	*DUPLEX	Back CIS exist
8	17	A4/*A3	CIS size A4 or A3
9	16	GND	Ground
10	15	PHI_ICG	Back CIS ICG pulse
11	14	PHI_ST	Back CIS storage pulse
12	13	PHI_SH	Back CIS shift pulse
13	12	GND	Ground
14	11	PHI_CP-	Back CIS clamp pulse LVDS (-)
15	10	PHI_CP+	Back CIS clamp pulse LVDS (+)
16	9	PHI_RS-	Back CIS reset pulse LVDS (-)
17	8	PHI_RS+	Back CIS reset pulse LVDS (+)
18	7	PHI_M-	Back CIS clock LVDS (-) (5 MHz)
19	6	PHI_M+	Back CIS clock LVDS (+) (5 MHz)
20	5	GND	Ground
21	4	5VP	+5 V
22	3	5VP	+5 V
23	2	+12V_2	+12 V
24	1	+12V_2	+12 V

CN1006 [CONTROL Board] - CN4007 [DRIVE Board]

Pin No.		Signal Name	Description
CN1006	CN4007		
1	1	24VIL	+24 V (interlock switch)
2	2	PGND	Ground
3	3	+24V	+24 V
4	4	+14V	+14 V
5	5	GND	Ground
6	6	+5V	+5 V
7	7	+5V	+5 V
8	8	GND	Ground
9	9	GND	Ground
10	10	+3V	+3.3 V
11	11	+3V	+3.3 V
12	12	GND	Ground
13	13	GND	Ground

CN1007 [CONTROL Board] - CN4001 [DRIVE Board]

Pin No.		Signal Name	Description
CN1007	CN4001		
1	36	12V_OVP1	+12 V
2	35	12V_OVP2	+12 V
3	34	DOOR1	ADF door switch (H: Door open)
4	33	DOOR2 (N.C.)	Not used
5	32	(N.C.)	Not used
6	31	BLAMP_ON	Back lamp on
7	30	DRV_VER0	DRIVE Board version [0]
8	29	DRV_VER1	DRIVE Board version [1]
9	28	FANERR	Fan error
10	27	*SLEEP1	Sleep signal 1
11	26	*SLEEP3	Sleep signal 2
12	25	F_M1	Feed motor mode [1]
13	24	F_M2	Feed motor mode [2]
14	23	F_M3	Feed motor mode [3]
15	22	F_CW	Feed motor CW/CCW
16	21	F_ENABLE	Feed motor enable
17	20	F_MCLK	Feed motor clock
18	19	F_MVRE	Feed motor current control
19	18	GND	Ground
20	17	C_M1	Conveyor motor mode [1]
21	16	C_M2	Conveyor motor mode [2]
22	15	C_M3	Conveyor motor mode [3]
23	14	C_CW	Conveyor motor CW/CCW
24	13	C_ENABLE	Conveyor motor enable
25	12	C_MCLK	Conveyor motor clock
26	11	C_MVRE	Conveyor motor current control
27	10	GND	Ground
28	9	R_M1	Carriage motor mode [1]
29	8	R_M2	Carriage motor mode [2]
30	7	R_M3	Carriage motor mode [3]
31	6	R_CW	Carriage motor CW/CCW
32	5	R_ENABLE	Carriage motor enable
33	4	R_MCLK	Carriage motor clock
34	3	R_MVRE	Carriage motor current control
35	2	GND	Ground
36	1	*RESET3	System reset

CN1008 [CONTROL Board] - CN4002 [DRIVE Board]

Pin No.		Signal Name	Description
CN1008	CN4002		
1	14	FB_COVER	Flatbed cover detect
2	13	GND	Ground
3	12	12V_1	+12 V
4	11	5V_P	+5 V
5	10	*KEY1	Key input
6	9	*LED_RED	LED (Red) enable
7	8	*LED_GRN	LED (Green) enable
8	7	BUZZER	Buzzer
9	6	FBSIZE1 (N.C)	Not used
10	5	FBSIZE2 (N.C)	Not used
11	4	FBSIZE3 (N.C)	Not used
12	3	FBSIZE4 (N.C)	Not used
13	2	FBSIZE5 (N.C)	Not used
14	1	FBSIZE6 (N.C)	Not used

CN1009 [CONTROL Board] - CN5022 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN1009	CN5022		
1	22	*PEXIST	Paper sensor (L: Paper exist)
2	21	PSIZE5	Size detector 5 (H: Interception)
3	20	PSIZE4	Size detector 4 (H: Interception)
4	19	PSIZE3	Size detector 3 (H: Interception)
5	18	PSIZE2	Size detector 2 (H: Interception)
6	17	PSIZE1	Size detector 1 (H: Interception)
7	16	5VSLP	+5 V
8	15	5VSLP	+5 V
9	14	GND	Ground
10	13	GND	Ground
11	12	RETARD_REL	Retard release detector
12	11	HOPPER_HOME	Hopper home detector
13	10	PHEAD	Starting sensor (H: Paper exist)
14	9	SKEWL	Skew left sensor (H: Paper exist)
15	8	SKEWR	Skew right sensor (H: Paper exist)
16	7	PEXIT	Ending sensor (H: Paper exist)
17	6	24VIL	+24 V (Interlock switch)
18	5	5VSLP	+5 V
19	4	JSGAIN1	Double feed detector gain
20	3	JS_CLK	Double feed detector clock
21	2	GND	Ground
22	1	GND	Ground

CN1010 [CONTROL Board] - CN5035 [CARRIAGE HOME DETECTOR Board]

Pin No.		Signal Name	Description
CN1010	CN5035		
1	1	GND	Ground
2	2	CRHOME	Carriage home detector
3	3	5VSLP	+5 V

CN1003 [CONTROL Board] - CN3001 [CARRIAGE RELAY Board]

Pin No.		Signal Name	Description
CN1003	CN3001		
1	32	GND	Ground
2	31	OS16	Front CIS CH16 output
3	30	GND	Ground
4	29	OS15	Front CIS CH15 output
5	28	GND	Ground
6	27	OS14	Front CIS CH14 output
7	26	GND	Ground
8	25	OS13	Front CIS CH13 output
9	24	GND	Ground
10	23	OS12	Front CIS CH12 output
11	22	GND	Ground
12	21	OS11	Front CIS CH11 output
13	20	GND	Ground
14	19	OS10	Front CIS CH10 output
15	18	GND	Ground
16	17	OS9	Front CIS CH9 output
17	16	GND	Ground
18	15	OS8	Front CIS CH8 output
19	14	GND	Ground
20	13	OS7	Front CIS CH7 output
21	12	GND	Ground
22	11	OS6	Front CIS CH6 output
23	10	GND	Ground
24	9	OS5	Front CIS CH5 output
25	8	GND	Ground
26	7	OS4	Front CIS CH4 output
27	6	GND	Ground
28	5	OS3	Front CIS CH3 output
29	4	GND	Ground
30	3	OS2	Front CIS CH2 output
31	2	GND	Ground
32	1	OS1	Front CIS CH1 output

CN1015 [CONTROL Board] - CN3002 [CARRIAGE RELAY Board]

Pin No.		Signal Name	Description
CN1015	CN3002		
1	22	PHI_ICG	Front CIS ICG pulse
2	21	GND	Ground
3	20	PHI_ST	Front CIS storage pulse
4	19	GND	Ground
5	18	PHI_SH	Front CIS shift pulse
6	17	GND	Ground
7	16	PHI_CP-	Front CIS clamp pulse LVDS (-)
8	15	PHI_CP+	Front CIS clamp pulse LVDS (+)
9	14	PHI_RS-	Front CIS reset pulse LVDS (-)
10	13	PHI_RS+	Front CIS reset pulse LVDS (+)
11	12	PHI_M-	Front CIS clock LVDS (-) (5 MHz)
12	11	PHI_M+	Front CIS clock LVDS (+) (5 MHz)
13	10	GND	Ground
14	9	5VP	+5 V
15	8	5VP	+5 V
16	7	12V_1	+12 V
17	6	12V_1	+12 V
18	5	PGND	Ground
19	4	PGND	Ground
20	3	+24V	+24 V
21	2	+24V	+24 V
22	1	FLAMP_ON5	Front lamp switch

CN1014 [CONTROL Board] - CN5004 [OUTER CONVEYOR RELAY Board]

Pin No.		Signal Name	Description
CN1014	CN5004		
1	30	+3V	+3.3 V
2	29	GND	Ground
3	28	IPD (15)	CPU data for imprinter [15]
4	27	IPD (14)	CPU data for imprinter [14]
5	26	IPD (13)	CPU data for imprinter [13]
6	25	IPD (12)	CPU data for imprinter [12]
7	24	IPD (11)	CPU data for imprinter [11]
8	23	IPD (10)	CPU data for imprinter [10]
9	22	IPD (9)	CPU data for imprinter [9]
10	21	IPD (8)	CPU data for imprinter [8]
11	20	IPADR (0)	CPU address for imprinter [0]
12	19	*IP_HWR	CPU write signal for imprinter
13	18	IMPCLK	Imprinter clock
14	17	*CSIMPR1	Imprnter chip select
15	16	*IP_RD	CPU read signal for imprinter
16	15	*RESET	System reset
17	14	GND	Ground
18	13	24VIL	+24 V (Interlock switch)
19	12	GND	Ground
20	11	5VSLP	+5 V
21	10	5VSLP	+5 V
22	9	STBY	Waiting sensor
23	8	HOPPER_POS (N.C.)	Not used
24	7	GND	Ground
25	6	GND	Ground
26	5	BKDOOR (N.C.)	Not used
27	4	12V_2	+12 V
28	3	JS_DATA	Double feed detector
29	2	JS_GAIN2	Not used
30	1	GND	Ground

CN2007 [INTERFACE Board]: DIMM

Pin No.	Signal Name	Description
1	VSS	Ground
2	DQ0	SDRAM data [0]
3	DQ1	SDRAM data [1]
4	DQ2	SDRAM data [2]
5	DQ3	SDRAM data [3]
6	VDD	+3.3 V
7	DQ4	SDRAM data [4]
8	DQ5	SDRAM data [5]
9	DQ6	SDRAM data [6]
10	DQ7	SDRAM data [7]
11	DQ8	SDRAM data [8]
12	VSS	Ground
13	DQ9	SDRAM data [9]
14	DQ10	SDRAM data [10]
15	DQ11	SDRAM data [11]
16	DQ12	SDRAM data [12]
17	DQ13	SDRAM data [13]
18	VDD	+3.3 V
19	DQ14	SDRAM data [14]
20	DQ15	SDRAM data [15]
21	CB0 (N.C.)	Not used
22	CB1 (N.C.)	Not used
23	VSS	Ground
24	N.C.	Not used
25	N.C.	Not used
26	VDD	+3.3 V
27	*WE	DIMM write enable
28	DQMB0	Byte data mask 0
29	DQMB1	Byte data mask 1
30	*CS0	Chip select 0
31	DNU (N.C.)	Not used
32	VSS	Ground
33	A0	SDRAM address [0]
34	A2	SDRAM address [2]
35	A4	SDRAM address [4]
36	A6	SDRAM address [6]
37	A8	SDRAM address [8]
38	A10	SDRAM address [10]
39	BA1	Bank select address 1
40	VDD	+3.3 V
41	VDD	+3.3 V
42	CLK0	Clock input 0
43	VSS	Ground
44	DNU (N.C.)	Not used
45	*CS2	Chip select 2
46	DQMB2	Byte data mask 2
47	DQMB3	Byte data mask 3
48	DNU (N.C.)	Not used
49	VDD	+3.3 V
50	N.C.	Not used
51	N.C.	Not used
52	CB2	Not used
53	CB3	Not used
54	VSS	Ground
55	DQ16	SDRAM data [16]
56	DQ17	SDRAM data [17]

Pin No.	Signal Name	Description
57	DQ18	SDRAM data [18]
58	DQ19	SDRAM data [19]
59	VDD	+3.3 V
60	DQ20	SDRAM data [20]
61	N.C.	Not used
62	N.C.	Not used
63	CKE1	Clock enable
64	VSS	Ground
65	DQ21	SDRAM data [21]
66	DQ22	SDRAM data [22]
67	DQ23	SDRAM data [23]
68	VSS	Ground
69	DQ24	SDRAM data [24]
70	DQ25	SDRAM data [25]
71	DQ26	SDRAM data [26]
72	DQ27	SDRAM data [27]
73	VDD	+3.3 V
74	DQ28	SDRAM data [28]
75	DQ29	SDRAM data [29]
76	DQ30	SDRAM data [30]
77	DQ31	SDRAM data [31]
78	VSS	Ground
79	CLK2	Clock input 2
80	N.C.	Not used
81	WP (N.C.)	Not used
82	SDA	Data input/output for serial presence detect
83	SCL	Clock input for serial presence detect
84	VDD	+3.3 V
85	VSS	Ground
86	DQ32	SDRAM data [32]
87	DQ33	SDRAM data [33]
88	DQ34	SDRAM data [34]
89	DQ35	SDRAM data [35]
90	VDD	+3.3 V
91	DQ36	SDRAM data [36]
92	DQ37	SDRAM data [37]
93	DQ38	SDRAM data [38]
94	DQ39	SDRAM data [39]
95	DQ40	SDRAM data [40]
96	VSS	Ground
97	DQ41	SDRAM data [41]
98	DQ42	SDRAM data [42]
99	DQ43	SDRAM data [43]
100	DQ44	SDRAM data [44]
101	DQ45	SDRAM data [45]
102	VDD	+3.3 V
103	DQ46	SDRAM data [46]
104	DQ47	SDRAM data [47]
105	CB4 (N.C.)	Not used
106	CB5 (N.C.)	Not used
107	VSS	Ground
108	N.C.	Not used
109	N.C.	Not used
110	VDD	+3.3 V
111	*CAS	Column address strobe
112	DQMB4	Byte data mask 4

Pin No.	Signal Name	Description
113	DQMB5	Byte data mask 5
114	*CS1	Chip select 1
115	*RAS	Row address strobe
116	VSS	Ground
117	A1	SDRAM address [1]
118	A3	SDRAM address [3]
119	A5	SDRAM address [5]
120	A7	SDRAM address [7]
121	A9	SDRAM address [9]
122	BA0	Bank select address 0
123	A11	SDRAM address [11]
124	VDD	+3.3 V
125	CK1	Clock input 1
126	A12	SDRAM address [12]
127	VSS	Ground
128	CKE0	Clock enable 0
129	*CS3	Chip select 3
130	DQMB6	Byte data mask 6
131	DQMB7	Byte data mask 7
132	A13	SDRAM address [13]
133	VDD	+3.3 V
134	N.C.	Not used
135	N.C.	Not used
136	CB6	Not used
137	CB7	Not used
138	VSS	Ground
139	DQ48	SDRAM data [48]
140	DQ49	SDRAM data [49]
141	DQ50	SDRAM data [50]
142	DQ51	SDRAM data [51]
143	VDD	+3.3 V
144	DQ52	SDRAM data [52]
145	N.C.	Not used
146	N.C.	Not used
147	REGE (N.C.)	Not used
148	VSS	Ground
149	DQ53	SDRAM data [53]
150	DQ54	SDRAM data [54]
151	DQ55	SDRAM data [55]
152	VSS	Ground
153	DQ56	SDRAM data [56]
154	DQ57	SDRAM data [57]
155	DQ58	SDRAM data [58]
156	DQ59	SDRAM data [59]
157	VDD	+3.3 V
158	DQ60	SDRAM data [60]
159	DQ61	SDRAM data [61]
160	DQ62	SDRAM data [62]
161	DQ63	SDRAM data [63]
162	VSS	Ground
163	CK3	Clock input 3
164	N.C.	Not used
165	SA0	Address [0] input for EEPROM
166	SA1	Address [1] input for EEPROM
167	SA2	Address [2] input for EEPROM
168	VDD	+3.3 V

CN2008 [INTERFACE Board]: SCSI Interface

Pin No.	Signal Name	Description
1	GND	Ground
2	GND	Ground
3	GND	Ground
4	GND	Ground
5	GND	Ground
6	GND	Ground
7	GND	Ground
8	GND	Ground
9	GND	Ground
10	GND	Ground
11	GND	Ground
12	N.C.	Not used
13	N.C.	Not used
14	N.C.	Not used
15	GND	Ground
16	GND	Ground
17	GND	Ground
18	GND	Ground
19	GND	Ground
20	GND	Ground
21	GND	Ground
22	GND	Ground
23	GND	Ground
24	GND	Ground
25	GND	Ground
26	DB (0)	SCSI data [0]
27	DB (1)	SCSI data [1]
28	DB (2)	SCSI data [2]
29	DB (3)	SCSI data [3]
30	DB (4)	SCSI data [4]
31	DB (5)	SCSI data [5]
32	DB (6)	SCSI data [6]
33	DB (7)	SCSI data [7]
34	*DBP	SCSI data parity
35	GND	Ground
36	GND	Ground
37	N.C.	Not used
38	TERM_ POWER	Terminator power
39	N.C.	Not used
40	GND	Ground
41	*ATN	SCSI control signal (Attention)
42	GND	Ground
43	*BSY	SCSI control signal (Busy)
44	*ACK	SCSI control signal (Acknowledge)
45	*RST	SCSI control signal (Reset)
46	*MSG	SCSI control signal (Message)
47	*SEL	SCSI control signal (Select)
48	*C/D	SCSI control signal (Control/Data)
49	*REQ	SCSI control signal (Request)
50	*I/O	SCSI control signal (Input/Output)

CN2009 [INTERFACE Board]: USB Interface

Pin No.	Signal Name	Description
1	VBUS	USB bus detect signal
2	DM	USB data -
3	DP	USB data +
4	GND	Ground

CN3003 [CARRIAGE RELAY Board] - CIS (Front)

Pin No.		Signal Name	Description
CN3003	CIS (Front)		
1	-	GND	Ground
2	-	OS16	Front CIS CH16 output
3	-	OS15	Front CIS CH15 output
4	-	GND	Ground
5	-	OS14	Front CIS CH14 output
6	-	OS13	Front CIS CH13 output
7	-	GND	Ground
8	-	OS12	Front CIS CH12 output
9	-	OS11	Front CIS CH11 output
10	-	GND	Ground
11	-	OS10	Front CIS CH10 output
12	-	OS9	Front CIS CH9 output
13	-	GND	Ground
14	-	OS8	Front CIS CH8 output
15	-	OS7	Front CIS CH7 output
16	-	GND	Ground
17	-	OS6	Front CIS CH6 output
18	-	OS5	Front CIS CH5 output
19	-	GND	Ground
20	-	OS4	Front CIS CH4 output
21	-	OS3	Front CIS CH3 output
22	-	GND	Ground
23	-	OS2	Front CIS CH2 output
24	-	OS1	Front CIS CH1 output
25	-	GND	Ground
26	-	PHI_ICG	Front CIS ICG pulse
27	-	PHI_ST	Front CIS storage pulse
28	-	PHI_SH	Front CIS shift pulse
29	-	GND	Ground
30	-	PHI_CP-	Front CIS clamp pulse LVDS (-)
31	-	PHI_CP+	Front CIS clamp pulse LVDS (+)
32	-	PHI_RS-	Front CIS reset pulse LVDS (-)
33	-	PHI_RS+	Front CIS reset pulse LVDS (+)
34	-	PHI_M-	Front CIS clock LVDS (-) (5 MHz)
35	-	PHI_M+	Front CIS clock LVDS (+) (5 MHz)
36	-	GND	Ground
37	-	5VP	+5 V
38	-	5VP	+5 V
39	-	12V_1	+12 V
40	-	12V_1	+12 V

CN3000 [CARRIAGE RELAY Board] - Lamp Drive Board (for front side)

Pin No.		Signal Name	Description
CN3000	Lamp Drive		
1	-	+24V	+24 V
2	-	FLAMP_ON5	Front lamp switch (H: Lamp ON)
3	-	GND	Ground

CN3006 [CIS RELAY Board] - CIS (Back)

Pin No.		Signal Name	Description
CN3006	CIS (Back)		
1	-	12V_2	+12 V
2	-	12V_2	+12 V
3	-	5VP	+5 V
4	-	5VP	+5 V
5	-	GND	Ground
6	-	PHI_M+	Back CIS clock LVDS (+) (5 MHz)
7	-	PHI_M-	Back CIS clock LVDS (-) (5 MHz)
8	-	PHI_RS+	Back CIS reset pulse LVDS (+)
9	-	PHI_RS-	Back CIS reset pulse LVDS (-)
10	-	PHI_CP+	Back CIS clamp pulse LVDS (+)
11	-	PHI_CP-	Back CIS clamp pulse LVDS (-)
12	-	GND	Ground
13	-	PHI_SH	Back CIS shift pulse
14	-	PHI_ST	Back CIS storage
15	-	PHI_ICG	Back CIS ICG pulse
16	-	GND	Ground
17	-	OS1	Back CIS CH1 output
18	-	OS2	Back CIS CH2 output
19	-	GND	Ground
20	-	OS3	Back CIS CH3 output
21	-	OS4	Back CIS CH4 output
22	-	GND	Ground
23	-	OS5	Back CIS CH5 output
24	-	OS6	Back CIS CH6 output
25	-	GND	Ground
26	-	OS7	Back CIS CH7 output
27	-	OS8	Back CIS CH8 output
28	-	GND	Ground
29	-	OS9	Back CIS CH9 output
30	-	OS10	Back CIS CH10 output
31	-	GND	Ground
32	-	OS11	Back CIS CH11 output
33	-	OS12	Back CIS CH12 output
34	-	GND	Ground
35	-	OS13	Back CIS CH13 output
36	-	OS14	Back CIS CH14 output
37	-	GND	Ground
38	-	OS15	Back CIS CH15 output
39	-	OS16	Back CIS CH16 output
40	-	GND	Ground

CN5029 [POWER RELAY Board] - Lamp Drive Board (for back side)

Pin No.		Signal Name	Description
CN5029	Lamp Drive		
1	-	24VIL	+24 V (Interlock switch)
2	-	BLAMP_ON5	Back lamp switch (H: Lamp ON)
3	-	GND	Ground

CN4004 [DRIVE Board] - CN5023 [PANEL Board]

Pin No.		Signal Name	Description
CN4004	CN5023		
1	1	BUZZER	Buzzer
2	2	GRN_LED	LED (Green) enable (L: LED lighting)
3	3	RED_LED	LED (Red) enable (L: LED lighting)
4	4	KEY1	Key input (L: Key push)
5	5	5VP	+5 V
6	6	12V_1	+12 V
7	7	GND	Ground
8	8	GND	Ground

CN4010 [DRIVE Board] - Carriage Motor

Pin No.		Signal Name	Description
CN4010	Carriage Motor		
1	-	*RA	Carriage motor phase (A-)
2	-	N.C.	Not used
3	-	RCOMA	+24 V (Fuse)
4	-	RA	Carriage motor phase (A+)
5	-	*RB	Carriage motor phase (B-)
6	-	RCOMB	+24 V (Fuse)
7	-	RB	Carriage motor phase (B+)
8	-	N.C.	Not used

CN4008 [DRIVE Board] - CN5025 [POWER RELAY Board]

Pin No.		Signal Name	Description
CN4008	CN5025		
1	1	GND	Ground
2	2	BLAMP_ÖN5	Back lamp switch
3	3	*CA	Conveyor Motor phase (A-)
4	4	CCOMA_MB	+24 V (Interlock switch and Fuse)
5	5	CA	Conveyor Motor phase (A+)
6	6	*CB	Conveyor motor phase (B-)
7	7	CCOMA_MB	+24 V (interlock switch and Fuse)
8	8	CB	Conveyor motor phase (B+)
9	9	*FA	Feed motor phase (A-)
10	10	FCOMA_MB	+24 V (interlock switch and Fuse)
11	11	FA	Feed motor phase (A+)
12	12	*FB	Feed motor phase (B-)
13	13	FCOMA_MB	+24 V (interlock switch and Fuse)
14	14	FB	Feed motor phase (B+)

CN4005 [DRIVE Board] - CN5036 [POWER RELAY Board]

Pin No.		Signal Name	Description
CN4005	CN5036		
1	1	24V	+24 V
2	2	24VIL	+24 V (Interlock switch)

CN5034 [DOCUMENT COVER DETECTOR Board] - CN4017 [DRIVE Board]

Pin No.		Signal Name	Description
CN5034	CN4017		
1	1	GND	Ground
2	2	FB_COVER	Flatbed cover detect (L: Cover open)
3	3	5VP	+5 V
4	4	5VP	+5 V

CN801 [POWER Board] - Inlet

Pin No.		Signal Name	Description
CN801	Inlet		
1	-	NEUTRAL	Neutral
2	-	N.C.	Not used
3	-	LIVE	Live

CN802 [POWER Board] - CN4003 [DRIVE Board]

Pin No.		Signal Name	Description
CN802	CN4003		
1	1	OVP+	Over voltage protect
2	2	P_FANERR (N.C.)	Not used
3	3	GND	Ground
4	4	GND	Ground
5	5	GND	Ground
6	6	+24VPWR	+24 V
7	7	+24VPWR	+24 V
8	8	+24VPWR	+24 V
9	9	*SLEEP_PWR	Sleep POWER (L: Sleep mode)
10	10	OVP-	Over Voltage Protect

CN803 [POWER Board] - FAN

Pin No.		Signal Name	Description
CN803	FAN		
1	-	FAN+	Fan plus power (+24 V)
2	-	N.C.	Not used
3	-	FAN-	Fan minus power

CN5028 [POWER RELAY Board] - Door Switch

Pin No.		Signal Name	Description
CN5028	Door Switch		
1	-	24V	+24 V (Interlock switch: +24 V IN)
2	-	24VDOOR	+24 V (Interlock switch)
3	-	24VDOOR	+24 V (Interlock switch)
4	-	24VIL	+24 V (Interlock switch: +24 V OUT)

CN5031 [POWER RELAY Board] - Conveyor Motor

Pin No.		Signal Name	Description
CN5031	Conveyor Motor		
1	-	*CA	Conveyor motor phase (A-)
2	-	CCOMA	+24 V (interlock switch and Fuse)
3	-	CA	Conveyor motor phase (A+)
4	-	*CB	Conveyor motor phase (B-)
5	-	CCOMB	+24 V (interlock switch and Fuse)
6	-	CB	Conveyor motor phase (B+)

CN5032 [POWER RELAY Board] - Paper Feed Motor

Pin No.		Signal Name	Description
CN5032	Paper Feed Motor		
1	-	*FA	Feed motor phase (A-)
2	-	N.C.	Not used
3	-	FCOMA	+24 V
4	-	FA	Feed motor phase (A+)
5	-	*FB	Feed motor phase (B-)
6	-	FCOMB	+24 V
7	-	FB	Feed motor phase (B+)

CN5001 [OUTER CONVEYOR RELAY Board] - Double Feed Detector (R)

Pin No.		Signal Name	Description
CN5001	Double Feed Detector (R)		
1	-	USOUND_R1	Double feed detector (Receiver1)
2	-	USOUND_R2	Double feed detector (Receiver2)

CN5006 [WAITING SENSOR Board] - CN5002 [OUTER CONVEYOR RELAY Board]

Pin No.		Signal Name	Description
CN5006	CN5002		
1	1	5VSLP	+5 V
2	2	STBY	Waiting sensor (H: Paper exist)
3	3	GND	Ground

CN5003 [OUTER CONVEYOR RELAY Board] - Imprinter (Option)

Pin No.		Signal Name	Description
CN5003	Imprinter		
1	1	+3V	+3.3 V
2	2	GND	Ground
3	3	IPD (15)	CPU data for imprinter [15]
4	4	IPD (14)	CPU data for imprinter [14]
5	5	IPD (13)	CPU data for imprinter [13]
6	6	IPD (12)	CPU data for imprinter [12]
7	7	IPD (11)	CPU data for imprinter [11]
8	8	IPD (10)	CPU data for imprinter [10]
9	9	IPD (9)	CPU data for imprinter [9]
10	10	IPD (8)	CPU data for imprinter [8]
11	11	IPADR (0)	CPU address for imprinter [0]
12	12	*IP_HWR	CPU write signal for imprinter
13	13	IMPCLK	Imprinter clock
14	14	*CSIMPR	Imprnter chip select
15	15	*IP_RD	CPU read signal for imprinter
16	16	*RESET	System reset
17	17	GND	Ground
18	18	+24VIL	+24 V (Interlock switch)

CN5015 [ENDING SENSOR Board] - CN5016 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5015	CN5016		
1	1	5VSLP	+5 V
2	2	PEXIT	Ending sensor (H: Paper exist)
3	3	GND	Ground

CN5012 [STARTING SENSOR Board] - CN5017 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5012	CN5017		
1	1	5VSLP	+5 V
2	2	SKEWR	Skew sensor (Right) H: Paper exist
3	3	PHEAD	Starting sensor H: Paper exist
4	4	SKEWL	Skew sensor (Left) H: Paper exist
5	5	GND	Ground

CN5007 [HOPPER HOME DETECTOR Board] - CN5018 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
CN5007	CN5018		
1	1	5VSLP	+5 V
2	2	5VSLP	+5 V
3	3	HOPPER_HOME	Hopper home detector (H: Home position)
4	4	GND	Ground

Double Feed Detector (G) - CN5021 [SENSOR RELAY Board]

Pin No.		Signal Name	Description
Double Feed Detector (G)	CN5021		
-	1	USOUND_S1	Double feed detector (Generator1)
-	2	USOUND_S2	Double feed detector (Generator2)

CN5014 [HOPPER RELAY Board] - CN5020 [SENSOR RELAY Board]

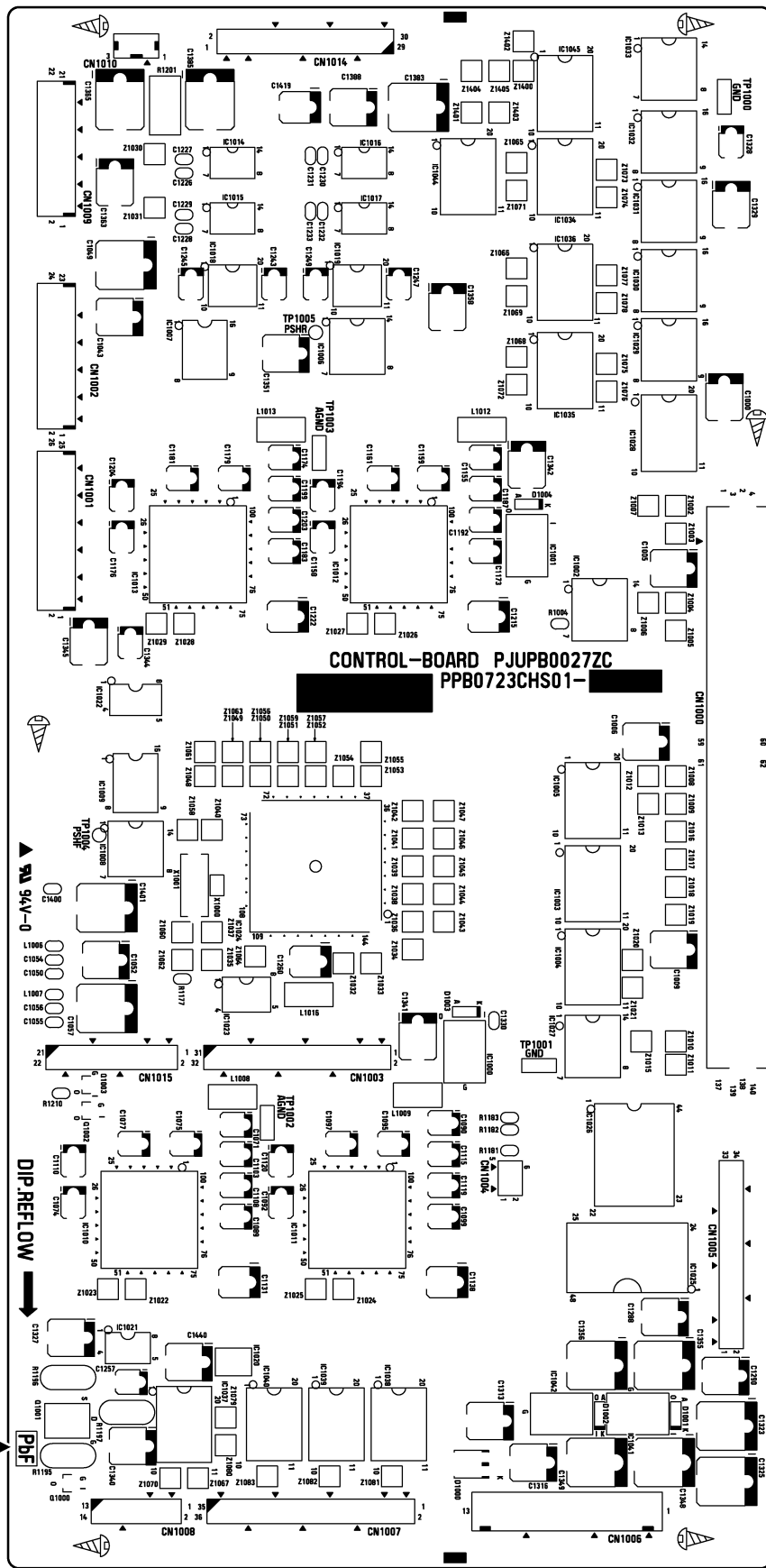
Pin No.		Signal Name	Description
CN5014	CN5020		
1	1	PSIZE4	Size detector 4 (H: Interception)
2	2	PSIZE2	Size detector 2 (H: Interception)
3	3	5VSLP	+5 V
4	4	5VSLP	+5 V
5	5	*PEXIST	Paper sensor
6	6	PSIZE5	Size detector 5 (H: Interception)
7	7	PSIZE3	Size detector 3 (H: Interception)
8	8	PSIZE1	Size detector 1 (H: Interception)
9	9	GND	Ground
10	10	GND	Ground

Paper Sensor - CN5011 [SIZE DETECTOR Board]

Pin No.		Signal Name	Description
Paper Sensor	CN5011		
-	1	5VSLP	+5 V
-	2	*PEXIST	Paper sensor (L: Paper exist)
-	3	GND	Ground
	4	FG	Frame Ground (to Plate)

CN5010 [SIZE DETECTOR Board] - CN5013 [HOPPER RELAY Board]

Pin No.		Signal Name	Description
CN5010	CN5013		
1	1	PSIZE1	Size detector 1 (H: Interception)
2	2	GND	Ground
3	3	PSIZE3	Size detector 3 (H: Interception)
4	4	GND	Ground
5	5	PSIZE5	Size detector 5 (H: Interception)
6	6	5VSLP	+5 V
7	7	*PEXIST	Paper sensor (L: Paper exist)
8	8	5VSLP	+5 V
9	9	PSIZE4	Size detector 4 (H: Interception)
10	10	PSIZE2	Size detector 2 (H: Interception)



CONTROL-BOARD PJUPB0027ZC
PPB0723CHS01-

PbF stamp

DIP REFLOW

94V-0

PJUPB002828

PbF stamp

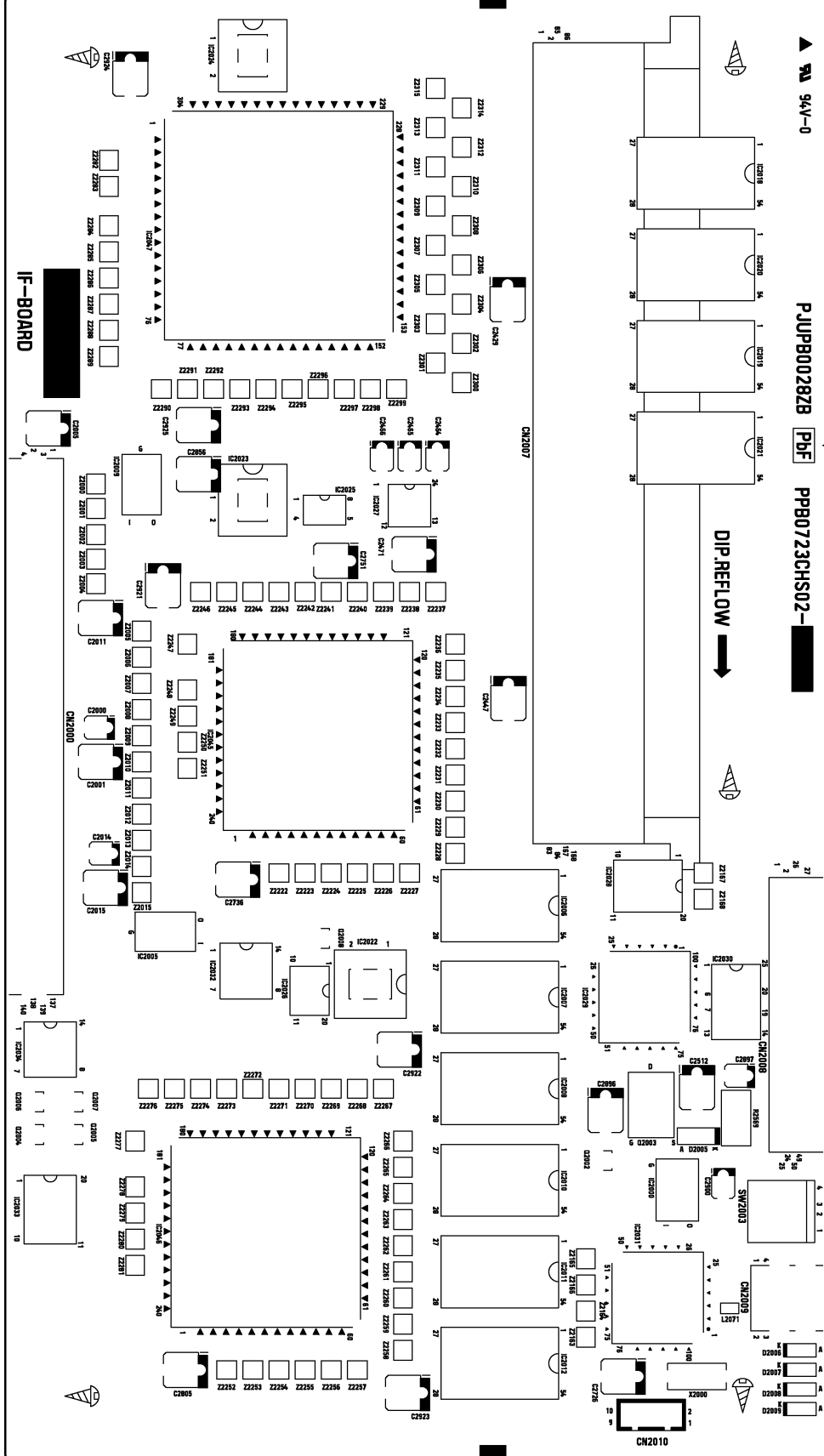
PPB0723CHS02-

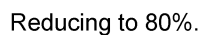


DIP REFLOW



IF-BOARD





PbF stamp

94V-0

PbF



CN3001

32



22

CN3002



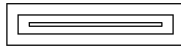
3

CN3000



PPB0723ADF03A00

PJUPB0034ZC-a



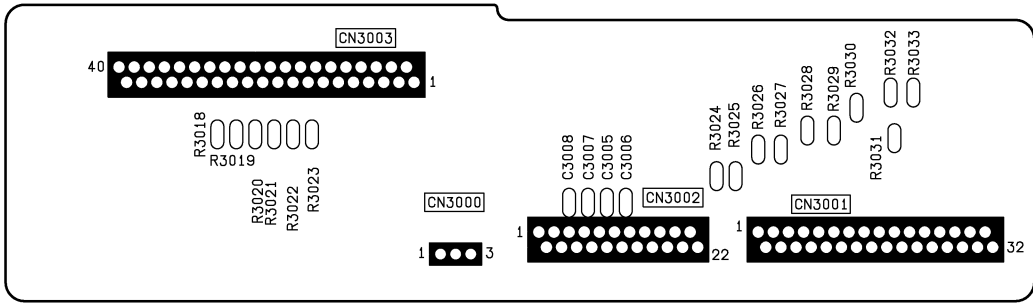
CN3003

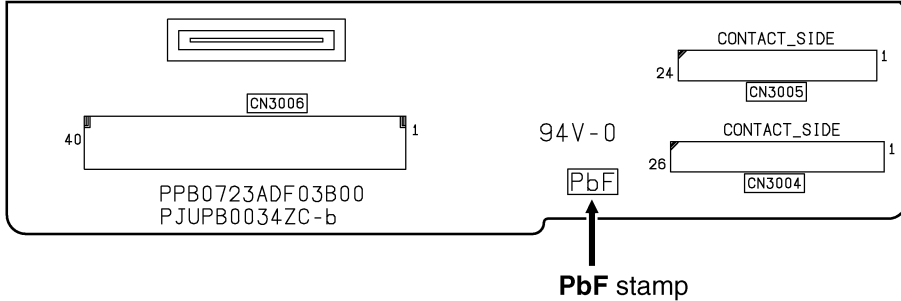
1

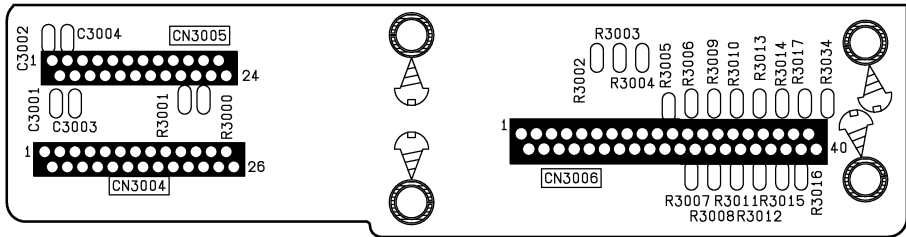


40

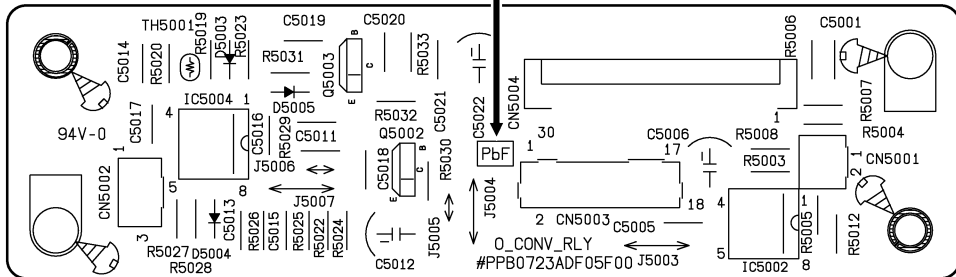




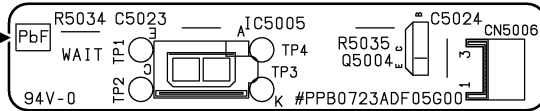




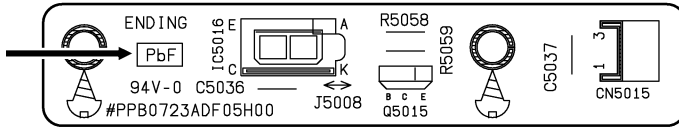
PbF stamp

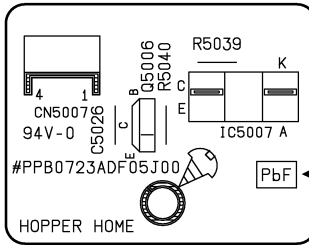


PbF stamp



PbF stamp

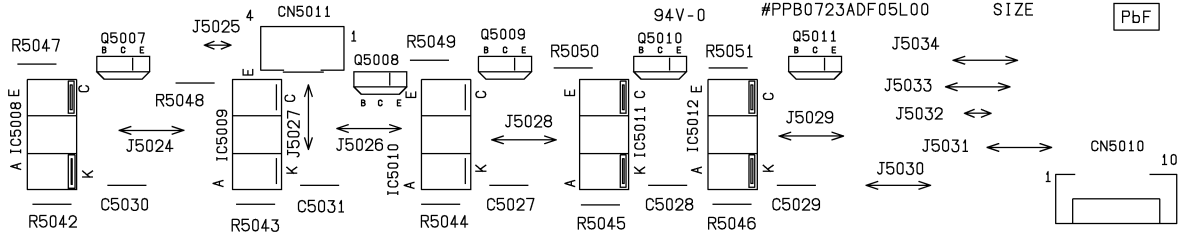




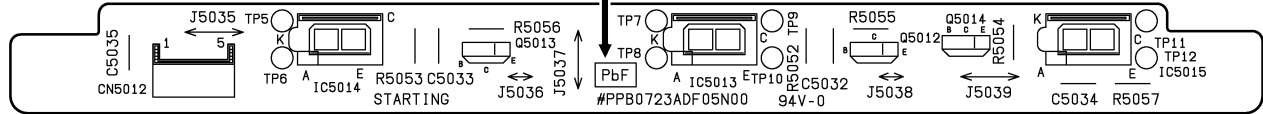
PbF stamp

PbF stamp

PbF

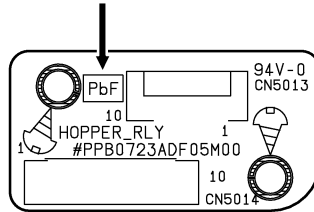


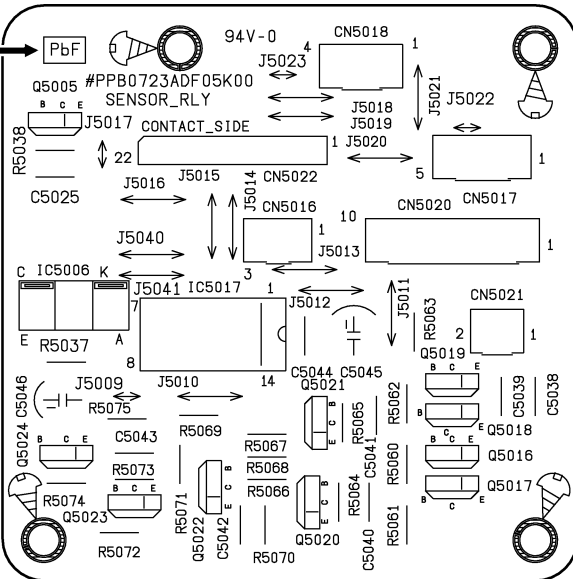
PbF stamp

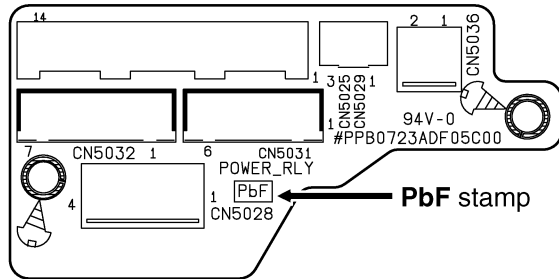


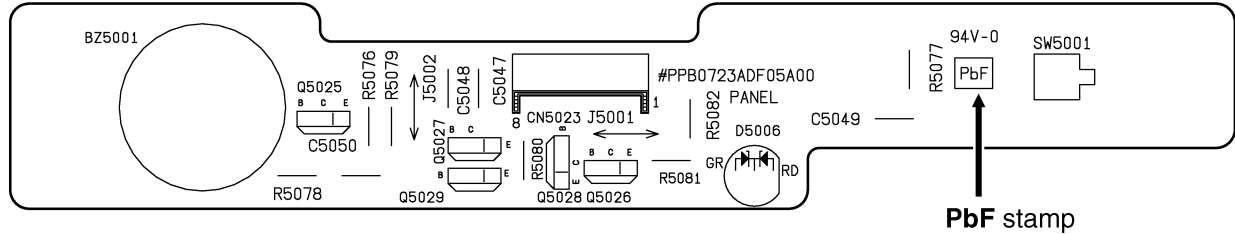
Reducing to 90%.

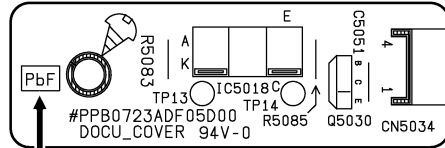
PbF stamp



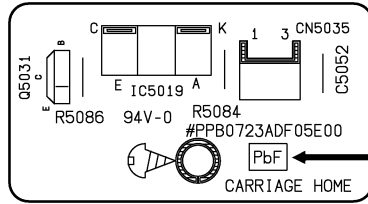


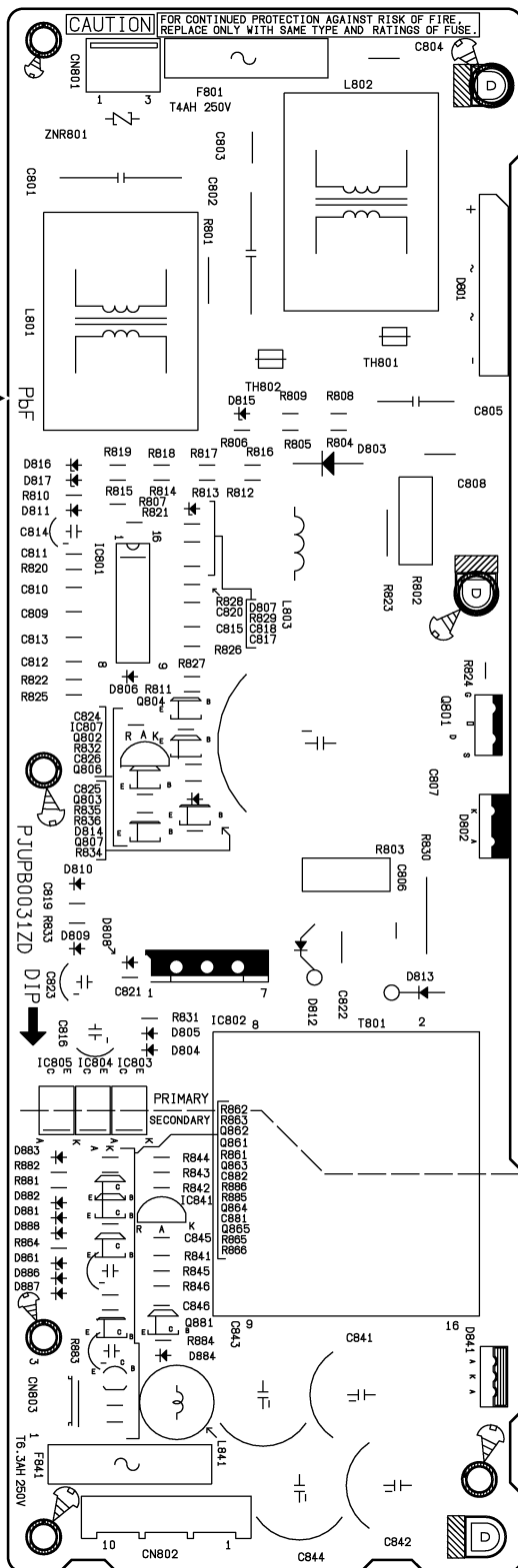






PbF stamp





Reducing to 80%.

